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THE HEALTH EDUCATION JOURNAL

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Editorial

"I am not so much afraid of the actual childbirth, as of spoiling the group's reputation at the maternity hospital", remarked one of Dr. Medalie's patients.[1] Perhaps this is not a congenial idea for most of us in our Western European society, but it is a telling statement which goes some way to supporting the work of those who have laboured so hard to achieve the ideal of childbirth without fear—and indeed without pain.

The late Grantly Dick-Read deserves all the credit for pioneering in this field, although his methods have been modified by other workers. Although he did not specifically claim it, he discovered a psychosomatic truth, the fact that the inexorable guardian of the uterus, the cervix, is subject to the emotions, just as the intestine will go into spasm in response to an emotional stress. In such circumstances the cervix refuses to relax at the given moment in the first stage of labour.

Such a concept was hardly likely to be universally accepted until the evidence of psychosomatic medicine was accepted by the orthodox profession. The other important discovery by Grantly Dick-Read was that pregnancy itself could cause disintegration of the personality. Under his system the personality of expectant mothers was reintegrated by methods which included physical culture, which promotes well being and helps to preserve the feeling of self-respect. From that time pregnancy was no longer necessarily a phase of heavy shapelessness and clumsiness preventing all social engagements or normal enjoyments. It was this appreciation of the emotional and social needs of expectant mothers which distinguished Grantly Dick-Read's methods from those which aimed rather at deliberate conditioning on frankly Pavlovian lines.

What is so remarkable is the worldwide interest in this matter. Ch'en-Wen-Ch'en[2] analysed 8,063 cases of "painless labour by the psychoprophylactic method". The instruction began at a time between the 32nd and 34th weeks of pregnancy and included discussion of fears and worries, as well as the familiar anatomy and physiology of pregnancy and labour, and breathing exercises. Success was claimed in 94 per cent. of cases. Mary Whittington[3] described a system of antenatal education carried out in Paris. In this system patients were taught, amongst other things, how it is possible to block the pain centres during contractions. Miss Denise de Hagen, who has lectured extensively in this country recently, gives us the same idea, and it appears that the important thing is that during labour the woman must be kept alert to the situation. Therefore sedation, or lack of interest in the surroundings, or anxiety caused by being left alone, are all enemies to the achievement of comfortable and painless labour. This is a complete change of attitude from that which regarded the woman in labour as a hospital patient who simply had a passive role to play.

We can say, then, that there is a worldwide movement to remove the ancient terrors and mysteries of childbirth. The Natural Childbirth Trust in Britain has been founded to further the work of Grantly Dick-Read, and one of the founders, Mrs. Prunella Briance, who is now living in Washington, is carrying on the good work in the United States. Some people are naturally doubtful and cautious about any system which is eponymous, but it is clear that common to all the methods and systems which are described is an underlying physiological principle, and that should convince us that all the methods are on the right lines.

[1] page 186.

[2] *Chinese Medical Journal*, 1957, 75, 337-343.

[3] *Midwives Chronicle and Nursing Notes*, 1957, 70, 186-87.

SIR ALLEN DALEY

interviewed by

Miss K. M. EVANS,	Health Visitor Tutor, Battersea College of Technology.
Mr. T. LLOYD,	Public Health Inspector, Southwark Borough Council.
Dr. H. NELSON,	General Practitioner, Fivemiletown, N. Ireland.
Dr. A. W. O. YOUNG,	Medical Officer of Health, Hobart, Tasmania.

In the Chair : Dr. A. J. DALZELL-WARD,
Medical Director, C.C.H.E.

In Volume 1 of the *Health Education Journal* there was an account of an interview which Sir Allen Daley gave to three representatives of that journal, in which he recorded some of his previous experiences in health education and also gave an indication of certain trends in the future which he believed would occur. At the C.C.H.E. Summer School in August, 1958, four members came forward to question Sir Allen on the things he said 15 years earlier.

Dr. Nelson :

Sir Allen, I have heard you described as the Father of the C.C.H.E. Is this really true ?

Sir Allen Daley :

That would take some time to answer, and I must be brief. It would be a title of very great honour, I think, to be regarded as the father of a body which is doing such extremely useful work. Possibly the title has been given to me because in 1924, I read a paper on the importance of health education before the Society of Medical Officers of Health, which was published in *Public Health*.[1] In that paper I made the suggestion that there should be some central body which would take the leadership in health education in this country. That leads on to why I thought that there should be such a body and what I thought it ought to do.

I have been interested in health education ever since I first

[1] *Public Health*, September 1924, **37**, 305-12.

became a medical officer of health in June, 1911. I was struck by the deaths which were caused through people not seeking medical care in time, through not going to the infant welfare centres which were then just beginning, through not taking the advice of school doctors to have treatment, either medical or dental, for their children, and there was a general resistance and apathy on all matters relating to health. I conceived it my duty to work up an interest among the populace, the people whom I served, in matters connected with health.

My first post was in the County Borough of Bootle, where I started in various ways—particularly with posters, leaflets, lectures and things of that sort. I only developed it in a big way when I went to the County Borough of Blackburn, at that time the largest cotton weaving centre in the world. I had the advantage of working with the Town Clerk, Sir Lewis Beard, who was keenly imbued with the same ideas. One of the things which I did there was to get notable lecturers, and we had enormous audiences. We had a monthly lecture in the central halls during the winter months and about 1,000 turned up to a lantern lecture and up to 3,000 for one illustrated by a film.

Then we started the idea that people would learn more if they saw an exhibition on health matters. At that time, as now, there were a large number of voluntary bodies interested in various aspects of health, and we borrowed exhibits from them. But my own staff in Blackburn spent many months preparing suitable exhibits, mostly in their spare time. The thing was a very great success, it attracted the great newspapers of the day and was the talk of the town. When the health week was over, these exhibits were no use to us and they were packed away and put in the cellar to be brought out again perhaps in several years' time. It occurred to me that if we had been able to apply to one central organisation then we would have been saved all the effort which we had had to put into the preparation of these exhibits and we would probably have had exhibits of a professional rather than an amateur character.

Also, I was dissatisfied with the health bulletins which were produced. I had seen some good ones in Chicago, and I knew that most medical officers of health and health workers were not really very good at writing journalese which would attract the attention of the people. I thought that posters, leaflets, health magazines ought to be done by experts and that the same material, by and large, would do for the whole community. So I suggested

that there should be an organisation which would take an interest in these things, act as a spearhead with regard to all matters concerned with health education, be a liaison with the government, and also be the servant of the local authorities and their health departments in that they would provide good publicity material which any local authority wanted. And I thought they ought, which in fact they have done in *Better Health*, to produce a central magazine on health, small, popular and cheap. I thought at first of rather a different type from *Better Health* as it is now. I had in mind the Church Magazine, where there is a good central portion distributed throughout the country, and on the outer leaves there is local material. I ran it on that basis for many years and it worked very well. If, because of my association with the early days of the Central Council you think I might be regarded as the Father of it, I am very proud to accept the designation.

Miss Evans :

In the interview you gave in 1943, you referred to the great possibilities for health education in the department of the mind. What possibilities had you in mind at the time ? Have you any suggestions for us to-day as to how we should make use of these great possibilities ?

Sir Allen :

What I had in mind 15 years ago, and what was then realised by very few, was the enormous burden on the community of mental ill health. I thought that something ought to be done about it. We had up to then concentrated all our efforts on physical ailments and had neglected this very great and important subject of mental health. I am not a psychiatrist and I did not know enough about it to make any positive proposals, but some years later, I became the chairman of the Minister of Health's Central Advisory Committee on mental health and I used to put on the agenda paper at each of our meetings : " What do you recommend the Minister of Health to do about preventive psychiatry ? " I am sorry to say that although the committee was full of psychiatrists, we didn't get very much further. I do think that the way is now opening, and as a result of the work of Bowlby (though it isn't accepted by everybody) we do know a little about the ætiological factors in juvenile delinquency and mental problems in children. We are attaching more and more importance to the need for a young child even before it can speak to be surrounded by affection, which mustn't be such that there is no discipline—you can discipline a child with affection if you know the right way.

What can we do about it ? I think that without following all the airy-fairy fancies of certain psychiatrists, we on the public health side should examine all they have to tell us about factors predisposing to mental breakdwon and, through our health visitors and other people, and in other publicity ways, pass that knowledge on to those who are bringing up children. Also we should change the climate of opinion with regard to mental derangement. It is now regarded as a disgrace to have a relation who has attended a psychiatric clinic, and it is even worse if they have been in a psychiatric hospital. I think that we ought to be able to try and change opinion in the direction of making people realise that mental breakdown is not very different from appendicitis or some other physical ill. In those two ways we can help things along : by trying to get people to think of mental hospitals in the same way as they do general hospitals, without having feelings of guilt or shame ; and through health visitors, school nurses and by other means impressing on parents the importance of surrounding their children with affection.

Miss Evans :

You say we should seek to change the climate of public opinion about mental hospitals. Do you include the mentally defective person ?

Sir Allen :

With regard to mental defectives, it is interesting that some people have the sole idea that they should be sterilised to make sure they don't have any children. As you know, the geneticists and others have discovered that that would not make any real difference. This is one of the facts which we ought to try to get over to the people of this country, and one of the main objectives, I would say, of the Central Council is to take these outmoded ideas and if we are certain that they are wrong tell the people so, and tell them what is right.

Mr. Lloyd :

Sir Allen, if I may refer to your very last paragraph in this recorded interview, you said something then which is as true now as it was then and will always remain true : " The community is made up of individuals, and if we educate the ordinary person to think aright as regards health, the community as a whole will be all right ". In your opinion, can health education alone bring about that satisfactory state of communal health, or does each phase of progress and development require the initial impetus of legislation ? For example, smallpox was not eradicated before vaccination

became compulsory. In London, intestinal infections were not reduced until the water companies were forced to take their water intakes above Teddington. More recently, clean food only now seems possible due to the requirements of the Food Hygiene Regulations. In fact, it would appear that the only major achievement of health education without initial legislation has been in the almost entire disappearance of diphtheria.

Sir Allen :

I still think that the health of the community is the same as the health of the individuals, and also that the opinion of the community is very largely, but not entirely, the opinion of the members of that community. There is also this, and it has been well said I think, that every country is governed by a minority, in that people who reckon that they represent the views of all the people in the community are generally found to have pushed themselves to the front and to be imposing their will on the whole community, although they are only representative of the minority. That is politics.

In health matters, I do think that it is the individual that matters. But it is extremely difficult, as is shown by experience all over the world, to change traditional opinions and traditional forms of life. I don't know whether any of you have read (and if you haven't, I very much recommend it) a book called *Health, Culture and Community*, edited by Benjamin Paul and published by the Russell Sage Foundation of New York. It is a series of about 20 case reports of people trying to change for the better the health habits of various communities, many of them primitive but some in fashionable suburbs of Boston, and so on. I must say that by and large it is a story of failure. There are some instances of striking successes; particularly, for example, two cases of diphtheria in South East China, one treated by the local witch-doctor and the other, much to the annoyance of the family and friends, taken to the European hospital. Fortunately, the one that went to the European hospital got better and the other died. After that the attitude towards European medicine and preventive measures was very greatly changed. There is another instance of a small Republic in the northern part of South America with a polluted water supply. They sent the public health nurse there for the purpose of getting them to boil the water and avoid taking the polluted water supply. When they started 11 families out of about 200 were taking proper precautions. After they had worked solidly for two or three years, the 11 had become 18. That shows

what an up-hill task it is.

That is the first part—you must try to get at the individual before you can improve the health of the community. Secondly, is it better done by persuasion than by law? You are quite right to say that, as a rule, most improvements are effected by law. On the other hand, you will remember there are differences with regard to the relationship of the people and the law in different countries. In this country, I think properly, if Parliament enacts a law we see that it is carried out. In other countries (the U.S.A. is an example), without necessarily having the public behind them the experts tell them that they ought to have an ordinance to do this, that and the other. But they wait perhaps for years before bringing it into full operation because they have to work on the people. Personally I think it is better our way, in that legislation should not come in advance of public opinion; as was found, for example, in connection with an Education Act of many years ago, when they legislated with regard to sectarian schools. There was a strike, and respectable citizens were sent to jail because they wouldn't pay the education rate. After that lesson, and possibly a few others, we now only legislate in such a way that we think the community will take it, and we require that the law should be carried out. I think it is a good thing in connection with food hygiene that there should be a few teeth in the advice that is given by the people from the health department.

You did mention smallpox and diphtheria. Vaccination against smallpox is an instance, I think, of legislating in advance of public opinion. When Jenner's discovery of vaccination was made, everybody was scared of smallpox and it was regarded as some heaven-sent miracle that they could have this benefit. Before that, as you know Lady Mary Montagu had brought back the idea of vaccination from Turkey but with the virus of smallpox itself and a lot of children died from it. So Jennerian vaccination was a great step forward and was welcomed by the people. Then the "antis" got busy because an occasional child would get erysipelas from the then arm-to-arm vaccination and die from it. So about twenty years ago with the virtual disappearance of smallpox, except when it comes to this country from abroad, and the conscientious objection clause passed through Parliament, the percentage of children vaccinated, so-called compulsorily, got down to 40%, because the other 60% had a conscientious objection to it.

About this time began a campaign, started by Sir Wilson Jameson

on the radio, to see if we couldn't do what some cities in Canada and the U.S.A. had done with regard to diphtheria immunisation. He gave a broadcast about it, the Ministry of Health started a big campaign with the assistance and help of the Central Council, and we got 70% of the children voluntarily immunised against diphtheria. At that stage, the Ministry of Health approached me, as I was then Chairman of the Central Council, and asked me if I did not think it was a farce to go on with compulsory vaccination against smallpox and that perhaps there would be better results if it were dealt with on the same lines as immunisation against diphtheria. I agreed, and the compulsory vaccination against smallpox was repealed, but I am sorry to say that we haven't been anything like so successful with regard to boosting up vaccination against smallpox as we hoped, and it has gone lower than ever since compulsory vaccination was removed. So, there may well be something in what you say, that it is a good thing to put teeth by legislation into what we are trying to do.

Dr. Young :

In your review of health education in 1943, you stated that "There is, however, the problem of reaching the indifferent". Do you think this problem has been solved to any great extent and, if so, how has this been done ?

Sir Allen :

I really don't know. It can be argued that the people who are interested in a healthy life for themselves and their children should be the ones to be encouraged and given all the help possible. We are all the time up against the people who don't bother, who don't care. The only way it seems to me that you can reach them is by tacking on the health message to something that they would ordinarily be listening to or going to do anyway. I am certain that you cannot get the indifferent ones to come and hear a lecture on health, read a leaflet or anything of that sort. You may get to them by the radio or T.V. particularly if it precedes something that they are anxious to listen to and they switch on a bit early. I don't know whether this audience knows (Dr. Dalzell-Ward probably does), that it was through the Central Council that Dr. Hill got on as the radio doctor with an enormous following of some millions. It arose in the early days of the war, when we were very frightened lest there should be epidemics which would interfere with the conduct of the war in the factories and so on. We felt that the health message is only listened to by a select few and that the vast majority "couldn't care less". So we approached the

B.B.C., with the aid of the Ministry of Health, and suggested a five or ten minute talk once a week. They demurred to start with, but we finally persuaded them and suggested that they had Dr. Charles Hill, who was then Deputy Secretary of the British Medical Association, and also Deputy Chairman of this organisation. He made an enormous success of it. People listened to him not because it was health, but because it was Charles Hill, and the indifferent at least had the opportunity of learning what they ought to do. Whether they did it or not one cannot tell.

Miss Evans :

In 1943, Sir Allen, you placed emphasis on health education in schools. Has health education, in your opinion, been accepted in our schools as an important subject, and who should carry it out ?

Sir Allen :

I think there is a good deal of lip service to the importance of health education among educationists. I know thousands, and have worked with hundreds, and their attitude differs a great deal. Some are extremely keen and any suggestion you make to them they follow up with avidity. With others, you might just as well talk to the table for all the difference it makes. Therefore, I don't think there can be a general answer to the questions. Is it improving, are they doing it enough ? I think that on the whole there are more people interested in health education in schools than there were.

The other question—who should it be done by, experts or the ordinary class teacher ? I am a great believer in the fact that health education can be brought into almost any lesson if people will set their minds to it. Even in arithmetic, percentages of immunisations and deaths can be brought in ; in geography, they can talk about malaria, sleeping sickness ; in history, about countries which have been ruined because of epidemics among their armies. They can make health something vivid and living if they introduce it on every possible occasion. Is that enough ? Probably not. I certainly think that in the biological lectures for the children who are becoming teenagers, specific health lectures and applications of biology to health could be included. Just to comment again on bringing it into other subjects : in one of my towns, I got someone to give quite substantial prizes for health posters designed by the children in the classes. We got the art mistresses interested and we had a wonderful selection, with 1st, 2nd and 3rd prizes and highly commendeds, and we had an exhibition at the Guildhall of

all the posters which we thought worth putting up. The specialists in physical education and biology perhaps might give the children two or three pep talks on health in general. That also leads to the question should you have an outside lecturer come in to talk to the school leavers on problems relating to sex. It has been done quite successfully in some places, I know, but at the same time I am a bit doubtful about the value of special education on sex. It can come better automatically out of biology. With regard to human sex relations, that really ought to be left to the parents, and if the parents won't tackle it, to the family doctor or possibly in certain cases the headteacher, by arrangement, to individuals. Then also I think in connection with schools and health education, a great deal more ought to be done in the training colleges. In the training colleges there is a place for someone, who must have a considerable personality, to impress on the student teachers the importance of health education and tell them, in the way that I have very briefly done to-night, how matters relating to health can be brought into so many subjects. If it is tacked on to something it is more likely to stick than if it is given as an ad hoc lecture.

Dr. Nelson :

Is it, in your opinion, easier or more difficult for a general practitioner to play his part as a health educator since the introduction of the National Health Service ?

Sir Allen :

My answer to that would be that there are two important factors in the health education given by a general practitioner. I should perhaps say in parenthesis that no one can do it better and with more acceptance than the general practitioner, who has been chosen by the particular people to be their doctor and can wield immense influence over them. The two factors which I was speaking of are these. First of all, is he interested in prevention ? Many, I am sorry to say, get so interested in the problems of diagnosis and treatment that they don't give much thought to prevention. The other is, has he the time ? This is perhaps where the National Health Service comes in, because I think that we all agree that most National Health Service doctors are working pretty hard now, possibly harder than they did before, and therefore they may not have the time. For a general practitioner to do health education work really is time-consuming if you look at it from the immediate point of view of the problem of his day's work. You can argue, of course, that if he does good preventive work over the years he will have less to do in the end. That is the long

term view which very few people, I think, would give a great deal of weight to.

I have tried to get general practitioners interested in health problems, and, not differing for a moment from what I said about the individual talk or a talk to the small group being most effective, there was scope for talking to an audience of the people on the panel of a doctor. I arranged in one town with the insurance committee, the predecessor of the executive council, that for any doctor who wanted it they would hire a hall, prepare invitation cards to all the patients on his list and ask them to come and hear a talk by this particular doctor. The idea was that he was seeing every week dozens of people with gastric ulcers, dozens of people with anxiety neurosis and so on, and he could give them standard advice. If he could give it to them as a group, the whole of his patients together, then it would save him time and would be good for the patients. Two or three took advantage of the offer, but they were so scoffed at, I am sorry to say, by their brother doctors that it died out. Some of the brother doctors said that these chaps only did it because they wanted to advertise themselves.

You ask is it better or worse since the Health Service came in. I don't know. I think probably there wasn't very much done at any time and there is less done now. I don't know ; I have no facts, it is only an opinion.

Dr. Nelson :

I think it is easier now under the present scheme, in my experience. You know who your patients are nowadays. You can always see them and they don't transfer and run about from doctor to doctor, they must stay as they are put. You can go to their houses and tell them and talk health education to them and their children.

Sir Allen :

It is a wonderful opportunity if people have the will to take it, but my experience is that very few do take it.

Dr. Dalzell-Ward :

I think, Sir Allen, that behind this question lies the matter which you have mentioned of the National Health Service imposing more day-to-day work on the doctor. On Friday, we had a general practitioner here who is one of the very few entirely private practitioners. He told us what he is doing in health education, but he was questioned very keenly as to whether it was not because he was dealing with the upper income group and had more time to attend to each patient.

Sir Allen :

I think that patients are becoming more intelligent and more interested in the prevention of ill health than they were. I should think there would be a greater demand for it, but whether that demand is being met to any extent or not, I am unable to say.

Mr. Lloyd :

In your paper you raise the point that " in health education we must take care not to engender fear ". But is it not true that in some aspects of health education that is just the emotion that must be aroused, or if not fear, acute apprehension at least. For example, I think the best poster on view here is the one of the burning cigarette with the smoke forming the word CANCER.

Sir Allen :

My views at that time were gained from talking to ecclesiastics about the V.D. campaign who said that you could never frighten people into being good and if you tried you would fail. We also had other experience of venereal disease, and the general opinion was that a play like *Damaged Goods* which showed the horrors of a syphilitic child didn't really keep people straight. There again I think that in the anti-venereal diseases campaign the better approach was to appeal to their better nature. This may have an element of fear in it, to tell them what might happen to their future wife and children. But an appeal to their affection for their family, and the pride which they ought to have in their future wife and family if they kept straight seems to me preferable ; rather than saying " if you run the chances of getting syphilis you will probably end up in a lunatic asylum " ; or " here is a picture of a person with a syphilitic ulcer, or a person who has got a syphilitic heart, and will die suddenly one of these days." People are fatalistic in regard to these things, they will do what they want to do in a fatalistic way, thinking it can't happen to them.

I think one can underline that question of appealing to fear on the very thing you mention, in the campaign against smoking. We hope we are making some progress with regard to teenagers, but with regard to the confirmed smoker, it doesn't seem to make a very great deal of difference. There is a fact which you can measure in this connection, which is that the consumption of tobacco goes on increasing, mainly in the form of cigarettes. So I feel that it is probably true that people won't be frightened into doing or not doing things.

Dr. Young :

In 1943 you mentioned that it is rather important that mass

observation methods should be directed to the results of the different types of health publicity. Have any such surveys been carried out ?

Sir Allen :

I have been disappointed that more has not been done. There are a few things which one can mention. One is an enquiry which was made some time ago on diphtheria immunisation. It was of a social survey type, where mothers who had had their children immunised were asked why they had had it done. They were given a list of about 12 things which might have induced them—a talk by a health visitor ; a leaflet ; a talk on the radio ; a newspaper article ; what the neighbour had done ; etc. Nothing clear cut came out of it. In most cases the mothers said they had their child immunised for three or four separate reasons out of the list of 12. I think probably the one which stood out highest was because Mrs. Jones next door had her child done. They would also be helped to form a decision by a visit of a health visitor or by something they had heard on the radio, but it is amazing how many people write on health problems to the women's magazines. Some of them said they had written to the editor of one of the women's magazines and asked her view, received a strong commendation for it, so they had had it done.

Secondly, in Edinburgh two years ago they tried out the value of posters.[1] They had posters all over the place, in buses, trams, public libraries, hoardings. One was on washing hands after using the lavatory, another was about flies. They had this intensive campaign in several districts of Edinburgh. Before it started they had a social survey asking people questions about how and why food poisoning occurred, etc. They ran their campaign for two or three months and then sent round again, in the same district by random sampling done scientifically, to see what improvement there had been in the knowledge of the people. They found there was not much improvement, except that people did appear to realise more than they did before that flies can cause food infection. That was about the only thing which had gone home. The conclusion was that a single poster does little good, but a repeated attack on people may do some good.

Also some research was done on a poster prepared by the Ministry of Agriculture during the war, encouraging people to dig for victory. The result they found was that only 18% of the

[1]Thomson, S. C. "Validation in Health Education : Poster Research". *Medical Officer*, 1956, July 20th, **96**, 33-6.

gardeners in the area where the enquiry was made had ever heard of the poster, although it was supposed to be a general mass release to everybody. That to some extent is negative. As you know, there is a great deal of controversy about whether publicity on the early stages of cancer will do more harm than good. Some think that so many people will get cancerphobia and neurosis that it is much better to let the few who might have been treated earlier and cured die, because the burden to the community would be much less than if there were whole hordes of cancerphobia people. Personally I think there should be publicity on cancer. I don't believe in this cancerphobia ; it has been exaggerated. It has been said, and this relates to Mr. Lloyd's question, by the opponents to education on cancer that you will frighten people to death, and the answer is that we will frighten people to life. There is now going on, (I haven't heard the result—I don't think it is quite finished yet) an enquiry in two similar urban districts in Lancashire : one where they have had a good deal of publicity on the early signs and symptoms of cancer and the other where they have done nothing. Over a term of years they are going to see what is the stage at which women with breast cancer, for example, go to their doctor for the first time in each of these two places, and whether or not there is any real difference.

Dr. Nelson :

We could follow the American idea of having an annual examination. Then no one is suspicious, it's all accepted as an examination.

Sir Allen :

These health checks, as they call them in America, are very common and I think they are good. You will remember when the B.B.C. started it in this country for their higher executives. They were going to pay high class doctors to examine their higher executives as a routine at periodic intervals. A number of the clinical leaders of the profession wrote to the medical papers and said it gave people a false sense of security and that there are many conditions which could develop within the period between examinations, and they were all against it. Also one of their points was that you might discover something which you knew would inevitably lead to a fatality. If you told these chaps you would bother them, give them neurosis, so, in their opinion, it is better to leave it alone. I think that some of the mass screenings, as they call it in America, like examining urine for sugar, examining blood pressure so that they can give advice to people if it shows a

tendency to rise, and looking for lumps in the breast, abnormal vaginal discharges for carcinoma of the cervix, looking for a rectal carcinoma and things like that, would probably do a very great deal of good. I am not sure that I agree with what they call the cancer clinics, which are all the vogue in certain States of America on the grounds that cancer affects so many different sites of the body that you have to have a whole battery of people to be able to make a check. It is much better probably, as far as cancer is concerned, to let people come to the outpatient department of a good hospital where they have the experts on the different organs all on tap.

Dr. Nelson :

You mentioned earlier, sir, that the success of your work in health education created such interest and enthusiasm in Blackburn that you ran a most successful health week. The material used on this occasion was stored away for future use. As it had been made for instruction and not for storage you felt it could be made use of in other areas. This thought inspired you to start a central body from which such material could be distributed. Seeing that such a body now exists, what do you think of its role in the future :

Sir Allen :

The Central Council for Health Education most certainly cannot be static, it must be dynamic. As I said in my earlier remarks, the local authorities are the people primarily responsible for giving health education to their communities. Therefore, the Central Council's main role is to do what the local authorities want them to do. That is, to provide the type of material which the local authorities desire and will use. This might be material for an exhibition, posters, leaflets and so on.

We have touched more or less on different aspects to-night. I am thinking now about the idea that we must be dynamic. There is a great deal to be done on mental health, for example. There is probably more to be done with regard to items of physical health. The Central Council only a few months ago had a conference on visiting children in hospital, where they got together experts to express their opinion. Later the address given by Professor Illingworth of Sheffield at that meeting was published in *The Lancet* and has given rise to quite a lot of correspondence since then. With regard to its future role, I feel absolutely convinced that as the years roll on, more and more people will want to know about how to keep fit, and among those who are responsible for the conduct of the Health Service of this country, there will be an increasing desire to have material which they can

use. But it must be kept up to date, it must be lively, it must not be stagnant, and any new ideas which come along should be tried out and offered. One of the great advantages of an organisation like the Central Council is that it is a forum where people's ideas can be discussed. It is a pool into which can flow ideas from all over the country and from which can flow out the good ones after they have been sifted.

Mr. Lloyd :

What is your opinion regarding the attitude of the general public to-day towards health education, as compared with the general attitude in your earlier days as a medical officer of health ? You refer to the fact that at Blackburn in 1920 there were audiences of up to 1,000 for a lantern show and up to 3,000 for cinematographic lectures on health matters. To-day of course they can't pull them in, even to Jayne Mansfield or Marilyn Monroe.

Sir Allen :

I got the surprise of my life when I started these lectures in Blackburn and we got such enormous audiences. I am sorry to say when I left that town within two or three years the audiences dropped. They had got used to them and they no longer had the appeal of novelty. Remember I am speaking of the early 1920s, when there wasn't radio, television or cheap cinemas. It was a manufacturing town where the people worked hard, and it was nice in the winter months to go to somewhere warm and bright where your friends were going, so they turned up in their hundreds. In London you could never get audiences of that sort, you can only do it in a town of about the size of Blackburn, 100,000 people. In London they have got their set habits, their methods of spending their evenings, and the last thing that they would ever want to do would be to come and hear a health lecture. Even in Hull, to which I went from Blackburn, with a population of 300,000, they would come to exhibitions but they wouldn't come to health lectures. So there we altered our tactics and sent the lecturers to them. There were a number of organisations which regularly met under the auspices of a Church or of a political party to hear talks on various subjects. I offered health lectures to these people, the ready made audience, and they accepted them. We made sure that they were people who could lecture, because in this respect there are three sorts of doctors : there are technicians, quite a substantial number, who know their subject inside out, but they cannot lecture at all ; then there are a very small number who have a wonderful technique for lecturing, but say the wrong things ;

and there is the minute percentage who know both what to say and how to say it. That leads me to add that if you try to get your lecturer accepted by a ready made audience, not one you have collected yourself, you must make quite sure that the person you send can lecture and will say the right thing. You know we have our daily medical journal, the *Daily Mirror*, which seems to provide medical facts every day and has a very large circulation, which makes one think that people are interested in medical facts. Unfortunately the sort of medical facts which they produce are those which are not very valuable from the point of view of health education, which by and large is not news, it is too prosaic. I don't think that ever again will anyone have the success in attracting audiences that I had in Blackburn, but I still think that there is an opportunity of sending the message to interested people if you look around in your own area and find what groups are meeting and offer them a lecture.

Miss Evans :

I am interested in subject matter and I notice that one of the subjects of the many successful health lectures given in Blackburn in the 1920s was venereal disease. What in your opinion are the subjects which to-day would draw as large an audience ?

Sir Allen :

We got tired of the special lectures on syphilis and venereal disease. They attracted large audiences, as I said, because it was sensational. They thought they were going to hear something which would tickle their ears, something sexy, which we tried to avoid. It was soon after this that we came to the conclusion, and so did the Ministry of Health, that the sooner special publicity on venereal disease was packed up the better. They approached the Central Council, when I was Chairman, and asked us to take it under our wing and add it on to ordinary health publicity instead of having an ad hoc organisation and ad hoc lectures.

What would attract people now ? Poliomyelitis would, perhaps, but I don't know that there is a great deal that they need to be told which isn't in the newspapers ; psychiatry, mental health, but again, in my view, this is presented by the newspapers in the wrong way. They sensationalise patients escaping from asylums and murdering people, with the result that there is a totally wrong idea of the ordinary mental patient. To conclude on a lighter note, if you judge success by size of audience I would say have a lecture on " Lunatics I have known " by someone from Broadmoor, and you would fill the place !

HYGIENE AND PREVENTIVE MEDICINE IN ANCIENT CHINA

By JOSEPH NEEDHAM, F.R.S. and LU GWEI-DJEN,
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HERE we should like to offer to the readers of this journal some observations on the historical concepts of hygiene and preventive medicine in Ancient China. By this we have in mind mainly the period down to the end of the Han (ca.+200). After that time Indian influence, entering China with Buddhism, brought considerable foreign importations in medical philosophy and these we shall not now consider. Moreover, in the early times the relations between medical philosophy and the thoughts of the writers on philosophy, ethics and logic were especially close ; for example, it is interesting that throughout the ages the duty of the Confucian literati to care for their parents according to the precepts of filial piety was a powerful influence in assisting the growth of medical science. It must, of course, be understood that we have to deal with ancient and early mediaeval conceptions which in practice had only a limited application to the life of the mass of the people as a whole. Nevertheless, it is reasonable to believe that the success of Chinese culture in maintaining its characteristic ethos throughout so large a population over the centuries was in part due to the contributions of those who concerned themselves with hygiene and preventive medicine.

The philosophers and the medical writers are at one on the subject. First of all, in the *I Ching* (Book of Changes), the basic text of which goes back to the –7th or –8th century, we have the fundamental statement that " the *chün-tzu* (great-souled man) always meditates on trouble in advance and takes steps to prevent it." Then in the *Tao Tê Ching*, the great poem attributed to

Lao Tzu which may date from about the –4th century, we have the following verse :

> " To know when one does not know is best ;
> To (think) one knows when one does not know is a disease.
> Only he who recognises this disease as a disease
> Can prevent himself from having such diseases.
> The sage does not suffer from these affections ;
> He recognises his (incipient) diseases as diseases
> And therefore does not have them."

Here we have the recognition of abnormal functioning at its small beginnings, and the recognition of causes bodily as well as mental. It is interesting that the conception should be applied to what modern science also recognises as the worst of all intellectual diseases.

Coming now to the early Han period we have the following statement in the *Huai Nan Tzu* book compiled about –120 by a group of scholars and proto-scientific magicians under the patronage of the Prince of Huai Nan, Liu An. There we read " A skilful doctor cures illnesses where there is no sign of disease, and thus the disease never comes."

To this period belongs the greatest of all the Chinese medical classics, the *Huang Ti Nei Ching, Su Wên* (The Yellow Emperor's Treatise on Internal Medicine ; the Pure Questions and Answers). The date of this work has given rise to a great deal of discussion but we may accept it as being mainly of the early Han period (–1st and –2nd centuries), though of course with some later interpolations. In one of the earliest chapters of this book, we find the statement, " It is more important to prevent illness than to cure the illness when it has arisen" ; and in an adjacent place we read :

> " The sage does not cure the sick only when they are sick but he prevents the illness from arising. In the same way he does not put right upheavals in the body politic, he prevents them from ever taking place. Surely it is too late to administer drugs after the illness has declared itself or to try to suppress a revolt after it has come about. Is it not like beginning to dig a well when one feels thirsty, or starting to manufacture weapons of war after the battles have begun ?"

Finally, there is an interesting passage in the *Ho Kuan Tzu* book (Book of the Pheasant-Cap Master). This is a very mixed compilation of a philosophical character many parts of which date from as early as the –3rd century, but which was added to from time to time and did not reach the form in which we have it now until the +3rd or the +4th century. One of the discussions there recorded (we need not insist too much upon its historical certainty)

is between Chao, the prince of Cho-Hsiang, the son of Duke Hsiang of the State of Chao, and his general, Phang Nuan.

> " Phang Nuan said to the prince of Cho-Hsiang, Have you not heard that Duke Wên of Wei State asked the great physician, Pien Chhio, saying, Of your three brothers, which is the best physician ? Pien Chhio answered, The eldest is the best, then the second, and I am the least worthy of the three. Duke Wên said, Might I hear about this ? Pien Chhio replied, My eldest brother treats diseases in a most god-like way. Before the disease has shown any symptoms, he has already got rid of it. Thus his fame never reached beyond our own clan. My next brother also treats disease very exactly and precisely, so his name has not become known beyond our own district. As for myself, I practise with needles, I examine the pulse and I prescribe drugs, in addition to which I have insight into what is happening between the skin and the flesh. Thus my name has become known among all the Princes of the Kingdoms and all the Feudal Lords."

It is interesting that Sun Ssu-Mo in the +7th century suggested the universal provision of what we should now call first-aid kits. In his *Pei Chi Chhien Chin Yao Fang* (The Thousand Golden Remedies for Emergency Use) he recommended that people, whether at home or travelling, should always have medicines ready. They should have moxa for moxibustion, various kinds of emergency pills, rhubarb, mercury, *kan-tshao*, *kuei-hsin*, etc., ginger and other drugs handy for making up prescriptions. In addition to this every large family should possess one or two treatises on emergency medicaments.

The *Chou Li* (Record of Institutions of the Chou Dynasty) is a large and interesting work compiled by scholars of the early Han Dynasty and to be dated about the –2nd century. It purports to be a register of the officials and their duties under the High King of the Chou Dynasty, namely, the period in the middle of the –1st millenium. It cannot, however, be a record of actual facts of that date, but constitutes rather a system showing what the Han Confucian scholars considered the ideal form for a unified Chinese imperial bureaucracy. Some parts of the book, especially the *Khao Kung Chi* (Artificers' Record) are probably genuine documents going back to the –4th century or a little before, in this case from the State of Chhi, but the greater part of the work is essentially Han.

Now the interest of this compilation in the present context is the detailed account of the medical and health officials attached to the imperial court. It is immediately interesting from the hygienic point of view to find not only an Imperial Physician (I Shih) who superintends the imperial medical staff, but also an Imperial Dietician (Shih I). His duties and those of his assistants were to take charge of the diet of the emperor and the court, bearing in mind the nature of the various foods to be combined

into a balanced diet and adapted at the same time to the cycle of the seasons. Besides these (and it is interesting that the Imperial Dietician comes next in order to the Imperial Physician), there was the Physician-in-Ordinary for Internal Medicine (Chi I) who dealt with the infections and epidemics characteristic of the four seasons, certifying and recording causes of death as well as applying remedies to the sick ; and the Physicians-in-Ordinary for External Medicine (Yang I). These officials cannot quite be called surgeons because they rarely operated, but their domain concerned war wounds and fractures as well as ulcers and oedemas. Lastly came the Imperial Veterinarian (Shou I) and his staff.

In addition to all these groups, however, there are quite a number of sanitary officials whom we might call " fumigators " or " vermin exterminators." For example, the Chu Shih is charged with combating poisonous parasites harmful to man using drugs in the form of smokes, but also conjurations. Similarly, the Chien Shih is charged with combating insect pests (e.g. silver fish, moths, boring beetles, ants, termites and so on). Again conjuration plays a part as well as fumigation and there is mention of the plant *mang* (*Illicium religiosum*, the bastard anise). This was a well known poison for insects and fish in antiquity. We find, for example, in the *Huai Nan Wan Pi Shu*, an interesting collection of recipes attributed to the group of experts surrounding Liu An, the Prince of Huai-Nan, and very reasonably attributable to that date (–120), the statement that *mang tshao* is a powerful fish poison. Returning to the *Chou Li*, the Chhih Pa Shih is charged with combating vermin in walls and houses ; for this purpose he uses lime prepared from mollusc shells and " scattered ashes ", words which may conceal the use of caustic alkali prepared by the burning of wood and the " sharpening " of its lye. Then the Kuo Shih has the duty of combating creatures which make disagreeable noises such as frogs or cicadas. Fumigation again occurs here with the very significant use of *ts'u chü* (*Pyrethrum seticuspe*, the winter aster) both for sprinkling as powder and also as fumigatory smoke. Although the use of pyrethrum has come down to us in the present text in connection with frogs and cicadas, this is probably only a chance and we cannot but take notice of the interest of the fact that such a valuable plant insecticide is mentioned among the paraphernalia of the sanitary officials in the *Chou Li*. Lastly, the Hu Cho Shih had to get rid of aquatic pests. He beats pottery drums and throws burning stones (or perhaps burnt stones, lime ?) in order to frighten them away, and

he is concerned with the magic of elm-wood branches and elephant teeth. We are obviously here in the presence of a mixture of ancient magic and effective insecticides. At the least it remains remarkable that this ideal if somewhat archaised reconstruction of what was imagined to be the perfect governmental staff includes so many sanitary officials.

Indeed, this was not the end of them. Elsewhere in the same book we meet with the waterways police (Phing Shih). Their duty was to warn of dangerous places as well as protecting fisheries out of season. They might thus be considered to be concerned with public safety in more senses than one since there are not a few species of fish in Chinese waters which are poisonous at certain seasons of the year. More directly important for our present subject, perhaps, are the sanitary police, (Chhü Shih, the word *chhü* here meaning a rotting corpse, or maggots therein). This official and his staff are charged with the removal of all rotting corpses whether of men or animals. When someone dies on the road, they have to bury the body and report to the magistrate on the day and month of the event, bringing the clothes and possessions of the deceased, with a view to the reclaim of the latter by his or her family. Last of all come the Yeh Lu Shih or traffic police whose duty was to inspect communications, direct traffic both on streets and waterways, keep rest-houses in good condition, conduct visitors to and from the frontiers and—again for us important—to organise the sweeping of the streets in the capital and other cities. Thus there is a great deal of interest from the point of view of preventive medicine in this ancient survey of the ideal imperial bureaucracy.

It is remarkable to see how far what we should now call the psychosomatic causation of disease was empirically recognised in ancient China. The philosophers of all the schools agreed without hesitation on the necessity of the cultivation of the mind and the control of the emotions. A typical statement may be found in the book *Shen Chien* (Precepts Presented to the Emperor) written about +190 by Hsün Yüeh. There he says, " In order to nourish the spirit, pleasure, anger, pity, happiness, cares and anxieties must at all costs be moderated." He goes on to say that those who are good at controlling their *shen chhi* (their mental pneuma) can direct it as Yü the Great (the legendary hydraulic engineer and emperor) did with water, the importance of regulation being to avoid excess and deficiency. The same attitude appears in the *Lü Shih Chhun Chhiu* (Master Lü's Spring and Autumn Annals), that

wonderful compendium of natural philosophy compiled by the proto-scientists and magicians gathered under the auspices of Lü Pu-Wei around –240 in the State of Chhin. In this book we find the statement :

> " Thus for the nourishment of health, nothing exceeds in importance the recognition of the fundamental nature of the human being. If this is once understood, then there is no room left for diseases to enter in."

The chapter ends with a splendid passage :

> " Nowadays people are always appealing to divination and offering up prayers for health and recovery, yet diseases rampage all the more. It is like an archer at a shooting-match who failing to hit the target calls for another one to replace it—how will this help him to score a bull's eye ? If one wants a kettle of soup to stop boiling, one must take away the fire from underneath. As for all these leeches and physicians, with their drugs and potions supposed to expel diseases, to slight them and master them, the wise men of old esteemed such men but little, considering that they dealt with the branch and not with the root."

One of the most important early developments in hygiene is the recognition of the spoilage of food. Food prohibitions played a prominent part in ancient Chinese life, if not perhaps so extensively developed as in ancient Israel. About –500, we meet with a relevant passage in the *Lun Yü* (Confucian Analects), that celebrated book which gives the sayings of the greatest of all Chinese philosophers, Khung Chhiu (Confucius) and reminiscences of him by his disciples. Here we are told that :

> " Rice which has been injured by heat or damp and turned sour, one must not eat, nor fish or flesh which has spoiled. That which is discoloured or smells badly one must not eat, nor any food which has been insufficiently cooked or which has been kept too long."

Safety regulations about food are found in very greatly enlarged form in the late +2nd century work of the eminent physician, Chang Chung-Ching. He tells us that eating and drinking is for the enjoyment of taste and the nourishment of life. Yet if it is not correctly ordered, what is eaten can be very harmful. There are certain things which must be abstained from. Only if the selection of diet is wise will the body benefit by it, and if the selection is unwise, great dangers, illnesses very difficult to cure, may arise. Then Chang Chung-Ching gives long lists of what should not be eaten. Among numerous taboos, the sense of which is not obvious to us to-day, we find many important prohibitions ; for example, all meat and fish which dogs and birds will not eat, or again meat which has on it red or coloured

spots ; dirty rice, or meat and fish which has a disagreeable smell. Chang also warns against all animals which have died spontaneously, and says that raw meat or milk will turn to white or red parasites. Elsewhere he gives a number of antidotes for poisoning by mushrooms, and cautions against certain toxic wild yams. All this is contained in the book which he entitled *Chin Kuei Yao Lüeh* (Systematic Treasury of Medicine) and his relevant chapters deserve much more study than they have so far received.

It should be recognised that no people have paid more attention to the importance of cooking than the Chinese. We do not refer here to the gastronomic triumphs of Chinese cuisine which are well known to all the world, but rather to the principles of Chinese cooking whereby so much oil at high temperature was used, the frying being carried on typically in large thin walled cast-iron vessels. It seems likely that the disinclination for cold food which seems to have characterised Chinese cooking for twenty centuries was a powerful hygienic factor in preventing the spread of infections. Even under the relatively unhygienic conditions of the old China, those Westerners who knew the country realised that the method of preparing food was extremely hygienic, so that as long as one always ate hot dishes the risk of infection was slight. The recognition of the importance of cooking may be illustrated by a statement from one of the apocryphal treatises of the early Han period. In the *Li Wei Hen Wên Chia* (Apocryphal Treatise on the (Record of) Rites ; Excellences of Cherished Literature), we read " It was Sui Jen who first drilled wood to obtain fire and taught the people to cook food from raw materials, in order that they might suffer no diseases of the stomach and to raise them above the level of the beasts." Here the reference is to a purely legendary character, a culture-hero, but the recognition of the hygienic function of cooking is quite clear. It was from these roots that there came forth the proverbial saying, " Anything thoroughly boiled or cooked cannot be poisonous."

The desirability of frequent and adequate ablutions is a commonplace in the old Chinese medical texts as no doubt amongst most ancient nations. From the general literature too, it is possible to collect abundant material for a history of bathing customs in the Chinese culture-area. Such a history would consider baths and washing facilities first in relation to the family, then in monastic establishments and colleges, continuing with the development of public bath-houses and ending by an account of the elaborate and celebrated bathing-pools of the imperial palaces in successive

dynasties. A special chapter would also have to be devoted to the hot springs, numerous in China. Here we need only say that the terminology of washing and bathing was already stabilised in the late Chou period, indeed in Confucian times (–6th century). We get a striking impression of the cleanliness which traditional etiquette and ceremonial required of the *chün tzu* (patrician, gentleman or scholar) of the Warring States period and the Han, from the *Li Chi* (Record of Rites), a compilation completed by –50 though dating in some parts as far back as ca. –450. Washing the hands five times a day, with a hot bath every fifth day and a hair-washing every third day was obligatory. This latter operation was considered especially important since the hair was worn long, and many a story in the classical books depends upon the high social value placed upon this duty. The *Lun Hêng* (Discourses Weighed in the Balance) of +83 shows us that the scholars of the Han took frequent baths, for Wang Chhung directs a sceptical attack on the superstition, enshrined in a manual called the *Mu Shu*, that there were lucky and unlucky days for doing so.

With the growth of Buddhism after the +2nd century an emphasis on personal cleanliness originally Indian gave powerful reinforcement to the indigenous prescriptions. Buddhist Abbeys (as in India and Ceylon) normally contained a bath-house or a bathing-pool, and its use was by no means restricted to the monks or nuns themselves, though at least in the earlier centuries the age-old Confucian prohibition of the mingling of the sexes in bathing was strictly observed. The Taoists also had bathing customs which figured prominently in connection with their fasts and purification ceremonies before important festivals. This practice had since ancient times been a matter of course for the emperor and high officials before great State liturgies and sacrifices. Bath-houses and bathing-pools were also attached to colleges, as we know from a number of stories concerning (for example) poems written on their walls.

Possibly because of a decline in the prosperity of Buddhist foundations after the Thang, the Sung saw the rise and rapid development of public bath-houses. In the Wu Tai period (about +914), the monk Chih-Hui became famous for the water-raising machinery constructed by him for the public baths at Loyang which accommodated thousands of people. Perhaps these were still Buddhist baths, public but not yet commercial. However, from the +11th century onwards, references to bath-houses which one could enter on payment of a fee become quite frequent. By the

time when the Sung capital had been transferred to Hangchow the common name for such public baths was *hsiang shui hang*, "perfumed water establishments." They advertised their presence by hanging up a water-pot or a kettle as their shop sign. These were the baths so much admired by Marco Polo. In later centuries the public *thermae* became almost as notable a feature of Chinese urban life as of that of ancient Rome, but unfortunately they often no longer contributed to hygiene, for the custom was to use the same water over and over again, heating it in boilers and continuously circulating it by chain-pumps to the pool. Possibly for this reason the baths came to be known as *hun thang*, "chaos halls", from the revolving motion of primitive chaos, but it is more likely that the word *hun* here referred simply to the atmosphere of social promiscuity. Since working people engaged in the dirtiest of occupations, together with pedlars, caravan-drivers and butchers now all used the baths, access to which was not forbidden to those suffering from contagious or infectious diseases, what had begun as a laudable measure of hygiene probably sometimes did more harm than good. A feature of the better public baths, especially those built round hot or medicinal springs, was the presence of masseurs, as we know for the +11th century already from the poems of Su Tung-Pho.

In one specific department of cleanliness, the care of the teeth, a good deal could be said about Chinese practices. Chhao Yuan-Fang, in his early +7th century treatise, the *Chu Ping Yuan Hou Lun*, refers to this many times. Quoting the (perhaps +5th century) *Yang Sêng Fang*, he says, "Early in the morning, gnash (or rub) the teeth and then they will not decay. After eating, always wash out the mouth several times; if this is not done the teeth will go rotten and give much trouble." The use of the soap-bean *Gleditschia* saponin as a tooth-powder or tooth-paste is referred to in the *Wei Sêng Chia Pao Fang*, a Sung book probably of the +11th century, and also in the *Phu Chi Fang* (Simple Prescriptions for Everyman) of +1410. This almost certainly implies the use of some instrument, a roughened stick if not an actual toothbrush. The history of the toothbrush in China has recently been investigated and evidence brought forward that toothbrushes made with bristles originated in the Liao dynasty (+937 to +1125). Indian influence, entering China with Buddhism, would undoubtedly have brought the use of a simple stick at a much earlier date, and indeed it is possible to see amongst the fresco paintings at the Thousand-Buddha cave-temples at Mo-kao-khu near Tunhuang in Kansu Province

on the border of Central Asia, in a cave which may be dated in the near neighbourhood of +775, a very clear picture of a monk cleaning his teeth. Others have shown that in the early part of the +13th century, both tooth-powder and tooth-brushes made from a plant called *siwak* (*Salvadora persica*), were in use in the Arabic culture-area, especially Egypt. As a first approximation, it would seem likely that the use of a roughened stick spread outwards from India and that the toothbrush, in the strict sense, may have developed both in China and in the Arabic lands.

In conclusion, therefore, it is clear that the conception of preventive medicine was very prominent throughout the ages in Chinese culture. In matters of personal and public hygiene China compares very favourably with the Greeks, Hebrews and other ancient peoples. Probably in all these fields the Chinese were well ahead of Europe through most of the middle ages and indeed until the last couple of centuries, when the influence of modern science on medicine and on engineering permitted so great an upsurge of practical hygiene and public health. Much more research is necessary, however, before we can attempt to strike a balance-sheet of the contributions of all the classical civilisations, east and west.

In his article "Health Education in Judaism" (March issue), Dr. Bernard Homa states "... there is no recorded case of cancer of the male organ in anyone who has been circumcised". He wishes to point out that this statement is only true of those who have been circumcised in infancy, which is the normal Jewish ritual practice. Among other religious groups where circumcision is carried out at puberty, malignant disease is known to occur.

Copies of the March 1959 issue, devoted to The History of Health Education, are still available, price 5s., from C.C.H.E.

PREPARATION FOR CHILDBIRTH

A community programme as an aid in the adjustment of new immigrants

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THIS community study concerns a group of young adults from eighteen countries with differing national, ethnic and individual customs, languages and behaviour, living on a co-operative agricultural settlement. Despite their differences, the members had, in most basic respects a remarkably uniform set of values (what the anthropologists would call " core of the culture ").

They came to Israel and this settlement as individuals, or in small groups, having for the most part left their families of orientation, as well as other kin and friends, in distant countries. Here they adopted a new kind of life, the physical, mental and social difficulties of which had been discussed but, with very few exceptions, not been experienced. The initial adventurous, romantic pioneering period, although hard, was marked by a great number of in-group marriages and a lot of gaiety. The time taken to react to this up-in-the-clouds stage varied with different individuals. The event (or crisis) which invariably, and often dramatically, brought this stage to an end, was the pregnancy of the wife. It was during this second stage that bottled-up reactions, to marriage, hard physical labour, differences with the management committee, the settlement as a whole, even the whole country, started making their appearance. Some couples who had severe difficulties of adjustment (in all aspects) left the settlement during

the early months of the wife's pregnancy. This was particularly noticeable among the few girls who had parents elsewhere in the country, and thus found it easier to return " home ".

The problem that the health personnel faced was :—how could they specifically tackle this difficult problem of adjustment and in particular, during the period of family stress, the wife's first pregnancy in an unfamiliar social, cultural and physical environment ? Particularly was this problem acute to the whole group, as with the many marriages, followed by the pregnancy of the women, the exodus of some couples was a threat to the stability of the whole group.

The Community

M.H., a co-operative rural settlement, is situated approximately 30 kilometers south of Haifa on the coastal belt of Israel. It is bounded on the west by the Mediterranean sea and on the east by the Haifa—Tel Aviv highway running at the foot of the Carmel mountain range ; to the north and south, fairly similar settlements exist. In the middle of M.H.'s land is a rocky hill on which all the buildings were erected, so as not to use the valuable arable land which lay around it for non-agricultural purposes. The climate consists essentially of hot, dry, humid summers, and cold, wet winters separated by short spring and autumn seasons. There is now a good plentiful water supply from two sources, although the initial eighteen months were extremely difficult in this respect.

The settlement was initiated in December, 1948, by a group of soldiers (from English-speaking countries) of the Israeli Army, and went on to the land in June, 1949, with approximately one hundred young adults (70 men, 30 women), the vast majority of whom had recently been discharged from the Army. Among this group were 8 married couples, two of these women being pregnant at that time. There were no children.

There was a rapid increase in the number of married couples due to the large number of in-group marriages, as well as the fact that the majority of new members admitted after the settlements' initiation were young married couples.

Eighteen different countries of origin were represented among the settlers (vast majority Jewish with some Christians), but the type of people attracted to it, had, despite their national differences of language, dress and customs, remarkably uniform basic values as regards marriage, family, child rearing, emphasis placed on physical work, other health practices, method of government, etc.

To illustrate this, it would perhaps be well to consider the formal (organised) and informal set-up of this type of settlement, and to remember that unless a person agreed with the basic tenets or values underlying this organisation, he or she did not attempt to join.

The families live in their own homes and do their own cooking. For the first year and a quarter after inception, all ate in a communal dining-room catered for by the communal kitchen, until housing and other facilities permitted the separation of the families to their own dwellings :—now the communal kitchen caters for single people who do not want to cook for themselves. Each family has its private life in a house surrounded by a plot of ground sufficient for a small garden. While the parents work the children, depending on their age, attend creche, nursery school or school. (Women work a certain number of hours each day for the settlement, depending on the number, and age of their children, e.g. with 3 children over 6 months, they give 2 hours daily to the community.) It must be pointed out that most services, laundering, ironing, creches, nursery schools, schools and stores are organised by the community. This type of family living will exclude those people, who, like members of the Kibbutz (comprehensive co-operative living) eat communally and have their children spend most of the day and night in children's homes, a short distance from their parents' homes.

On M.H. ownership of all the land and permanent structures is vested in the whole group, whilst movable fixtures, furniture and personal belongings are the property of the individual or family. Each adult works for the group in the task allotted by the management committee (elected at the Annual General Meeting) or its representative. In the choice of a job, the individual's preference, training, skill and experience, and his personality are taken into account, and by the time an individual completes his probationary period of one year, he has a permanent job. Whatever a member of the settlement earns, directly (e.g. in the form of a salary from an outside source) or indirectly (e.g. through the sale of vegetables he has grown in the communal gardens) goes to the group as a whole. Each group member, on the other hand, receives from the group what the latter understands to be his requirements, on the principle " from each according to his ability, to each according to his need ".

Individuals are accepted on one year's probation, following which they become fully-fledged voting members if they accept

the regulations of the settlement and, in turn, are accepted by a two-thirds majority of the members of the group. The general meeting of all the members is the ultimate controlling body, and they delegate authority by electing various committees. The executive management committee of five people runs the day-to-day affairs, whilst the Council of Twelve (including the 5) is essentially the policy proposing body. There are numerous small sub-committees responsible to, and represented by, a member of the Council. These include education, health, sport, play-reading, folk-dancing etc., covering the whole gamut of after-work activities. Each section of work, vegetable growing, dairy, laundry, etc., has a head and is represented by a full-time co-ordinator or manager on the management committee (equivalent to a farm manager). The group began a factory which, as it grew in size and economic importance, received direct representation on the management committee.

Each family or single person receives a monthly budget, varying mainly with the size of family, for items such as food (pregnant and lactating women receive special additions), clothing, recreation etc., and many of the needs are catered for by the local non-profit store run for the group by an elected representative. Marketing and buying on a large scale is done for the whole group by their elected representative. The settlement belongs to the General Federation of Labour and pays dues for each of its members and their dependants, receiving in return, among other things, a medical service which includes the attendances of a doctor and nurse. The number of formal attendances depend on the size of the community, although they are always available for emergencies. While the nurse is invariably chosen from the members of the group (if no trained nurse is available, a suitable girl will be sent for one year's training), very few settlements have a physician-member as in this case. The doctor usually lives on one settlement and attends 4 or 5 others in the surrounding district.

To sum up : This is a type of co-operative living in which there is extensive economic co-operation, together with private family living, the nature of which is influenced by the informal social pressures of the group.

The basic values hinge upon :

(1) Group ownership of land and " fixed " property.

(2) The elementary family (parents and children) living together as one unit.

(3) Emphasis on equality and mutual aid. Every adult member

has one vote. Mutual aid is the responsibility of the group during periods of dependency : disablement, hospitalisation, etc., organised by and for the group. This leads to there being only one type of status :—achieved.

(4) Ultimate organisational control of group vested in general body of members.

(5) Value placed on work, particularly physical work.

(6) Companionship marriage—importance of, and similar attitudes toward certain facets of child-rearing, and many health practices. (The first structure built after initial settlement was a latrine.)

Finally, it can be said, that anyone who deviates in any important aspect of these values, usually finds that social life becomes more and more intolerable, until he or she usually resigns from the group.

The Health Personnel

The local health personnel consisted of a nurse, doctor and physiotherapist. The nurse received a salary for a four-hour day from the Federation of Labour Sick Fund, while the physician was a full-time employee of the same agency. Both salaries went into the group fund.

In addition to the settlement in question, the doctor dealt with four other similar settlements in the district, but his place of residence was on M.H. The physiotherapist began working in a voluntary capacity, i.e. in her own spare time, but gradually, as the number of pregnant women increased, and as the settlement began to appreciate the importance of the " natural childbirth " preparation, she was given official work time for her activities. Under that system of values, this indicated high esteem indeed. The important point about the personnel was that all of them were full and equal permanent members of the community in which they worked ; they were fully identified with the group as well as participating fully in community affairs. It might be well to go deeper into this point. The initiative in organising this ex-servicemen's group was taken by six people, two of whom were the physician and physiotherapist (husband and wife), while they were still in the army. On discharge from the army, the group was sent to a well established co-operative settlement in the Upper Galilee, and there spent three months receiving training in various branches of agriculture, as well as learning and experiencing something of the organisation and personal adjustments necessary

for this type of co-operative living. It is one thing to accept this type of living intellectually, it is another to live it. During this period of preparation, the health personnel did not practise their own skills, but worked and rotated through the different sections of the work as any and every other member of the group. This pattern continued in the initial period after settling down on their own land. Later the physician and nurse (part-time), followed by the physiotherapist, also in a part-time capacity, reverted to their own professions. Both the nurse and physiotherapist worked part-time in other branches of the settlement, e.g., the physiotherapist did shift work in the dairy, milking cows, and was highly valued for her speed and efficiency at this job. Similarly with the nurse and doctor ; even the doctor could, at times, especially during the harvesting season, occasionally be seen over week-ends helping to load bales of hay and straw on to the trucks.

The health personnel were active, too, in the formal organisation of the settlement—the physician was elected to the council at every annual general meeting, and served as chairman for one year. In addition, he was a regular participant in the many sporting activities—football, volley ball, etc. The nurse was an ex-officio member of the health sub-committee, and in addition was active in other fields, while the physiotherapist was the first woman to be elected to the local council and was active in the folk-dancing, sport and other activities. It can thus be appreciated that from the time of the formation of the settlement, the complete participation of the health workers in the formal and informal activities of the group made them identified with and by the other members, so that there was never any question of their doing things from the outside. They were members of the in-group and as such, their suggestions or innovations were not regarded with suspicion, but on the contrary, were generally welcomed. Similarly, there was no constraint or restraint felt on the part of the rest of the group in making suggestions re health matters. The doctor readily admits that it was this association that first made him consciously aware of the relationship and importance of soil, water and crops to health, and *not* anything that he had learnt in medical school.

It is also worthy of note that within the first three years of the groups' existence, both the nurse and physiotherapist became mothers themselves. Although in some ways it disturbed the continuity of the programme, the overall effect was a great enhancement to the prestige of the programme.

The Programme

With some conscious and formal planning and a great deal of unconscious or instinctive reaction, the health personnel aided the general problem by orientating the main emphasis of their work at that stage to a comprehensive ante-natal programme. An attempt was made to prepare the woman, her family and her community, for childbirth and motherhood. Here follows a brief summary of the individuals and groups that were contacted as part of the programme.

The individual pregnant woman was contacted through :—

(i) *Periodic health assessments* by the physician, aided by the nurse. This included interviews, clinical and laboratory examinations which were co-ordinated with

(ii) *Natural childbirth group sessions* run by the physiotherapist. These included explanations, discussions, exercises and relaxation, so as to prepare the woman mentally and physically for childbirth. (With some modifications, the principles of the sessions were based on those propounded by Dr. Grantly Dick-Read.) Although participation in these sessions was quite voluntary, group response, enthusiasm and pressure were such that within a few months of the onset, it would have been unthinkable for a pregnant woman not to take part. (One woman came " only because my husband insists".) This group soon became both a reference and membership group for every pregnant woman, taking place twice weekly in the afternoons. The group spirit became such, that one woman (approximately the fortieth to have passed through the training) said, " I am not so much afraid of the actual childbirth, as of spoiling the group's reputation at the maternity hospital ". A most important point of this training was the continuity, in the sense that the physiotherapist (or later, the nurse who occasionally relieved her, after receiving training in this aspect) accompanied each woman to the hospital, aiding and supporting her right through childbirth. (Three women who were delivered on the settlement also had the physiotherapist in attendance throughout.) It must be mentioned that every pregnant woman visited the obstetrician in the maternity hospital once towards the end of her pregnancy, thereby becoming familiar with the staff and place in which she was to deliver.

The response and results of this training were extremely beneficial and gratifying to all concerned, including those cases in which the women very dependent on the physiotherapist, who, with some of them, fulfilled the role of mother substitute.

(iii) *The nurse's home visits* during pregnancy dove-tailed into the rest of the programme and often rounded off the points that had not been touched on at the other sessions. Almost without exception, the nurse was present at the time, or later in the same day, when the mother and child returned from the hospital.

(iv) Each woman, being a member of a family and numerous other groups, had information transmitted to and from her, as well as having her beliefs and attitudes either reinforced or partially destroyed.

The rest of the family, which in practice meant the husband (most women were pregnant for the first time), was contacted through :

(i) *A health examination*, which, if it had not been previously performed, was arranged by the nurse, during his wife's pregnancy. This often gave him the opportunity for asking questions and discussing any problems, as well as giving the physician the opportunity to discuss the condition of his wife with him. This technique, i.e. to examine the husband during the wife's pregnancy, started by chance, later became policy. Although there was an occasional session with both husband and wife, this never became a regular feature.

(ii) Transmission occurred through contact with his wife, his work group, recreational and other groups.

(iii) Occasionally, an evening meeting of fathers (" pregnant " and otherwise) and a few enthusiastic bachelors, were held, and usually consisted of a talk (with the aid of a blackboard) by the physician, followed by questions and discussion, and ended with refreshments provided by the nurse.

Informal groups. As almost every woman, in the course of time, became a mother, more and more informal groups were involved in some way or other in this programme of preparation and served the very useful purpose of counteracting certain old wives' tales as well as reinforcing and transmitting valuable attitudes and information. It was in these widely pervading informal contacts that a great deal of education was done, at times without the health personnel being consciously aware of its scope and importance.

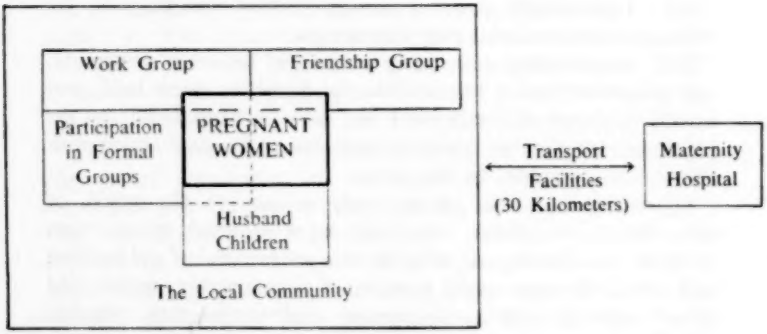
Organised groups. By virtue of the health personnel's participation on various committees, they influenced many fields of activity, both general and specifically in connection with pregnant women, e.g. availability of transport with a 24 hour duty driver, for conveying women to hospital ; increased food rations

for pregnant and lactating women ; the planting of certain new foods (crops) ; the type of food bought ; policy regarding milk and eggs ; hours and types of work for pregnant women. It was in this type of activity where action was needed, that use was made of the formal leaders.

The Maternity Hospital. Although quite a few hospitals in Haifa (the nearest city) came up to required obstetric and paediatric standard, the choice of the maternity hospital was made on the basis of standard of care, and the warm general attitude displayed to the women by the hospital staff. At the outset, the chief obstetrician was rather sceptical of " natural childbirth ", but after approximately twenty deliveries of women who had undergone this training, was completely won over, and has remained one of the staunchest supporters, as have the midwives and nurses of the maternity hospital.

Although it is difficult to show the inter-relationships of different groups by means of diagram, the extent of the coverage attempted can be shown.

The attempted coverage, by the Health Personnel, during the Pre-natal Programme :



Results

Results were analysed :

(a) For each individual from a number of points concerned with:

(i) Traditional medical conditions, e.g. : abnormalities, haemoglobin, weight gain, etc.

(ii) Reaction to her training :

(*a*) ability to relax ;

(*b*) ability to use her contractions and

(*c*) general behaviour and attitude during childbirth. (Detailed results are not included here).

(b) General reaction in and on the community. As this was not undertaken as research work (with the necessary control samples, etc.), the evaluation of the general effects of this programme depends mainly on impressions and feelings.

The general impression was that the programme helped to convert a crisis situation to which the women, their families and the community, were having great difficulty in adjusting, to one which the woman, her family, the rest of the community, and the hospital met with confidence and a sense of achievement. What was before a hazardous undertaking, became one around which a very good community spirit was built and as such, we believe, *helped* in the adjustment of individuals and families and the general community.

The important lesson for us was that a health programme, based on an important community problem and geared not only to the individual, but also to her family and other groups in the community, had much wider implications and repercussions than we thought possible.

Summary

A group of ex-soldiers (majority city-bred), recent immigrants to Israel from 18 different countries, founded a co-operative agricultural settlement in which the way of life as well as the total environment was strange to them.

Despite their heterogeneous origin, there was a high degree of uniformity of their basic values as related to ownership of land, organisation, attitude to work, equality, mutual-aid, family life, child-rearing, etc.

There was a rapid increase in marriages and subsequently in pregnant women, and this period of pregnancy was the crisis situation which brought forth all the reactions and behaviour of insecurity in unfamiliar surroundings. This led to a lowering of morale, with some resignations from the group, and consequently was a threat to the group stability.

It was during this period that the health personnel (a nurse, a physician, a physiotherapist) who were members of the group and completely integrated and identified with it, put into operation a community-wide programme of preparation for childbirth which did not conflict with any of the basic values of the community.

This programme affected almost every individual and group,

(organised and informal) in the community, as well as the maternity hospital in the nearby city, and gradually helped to convert a crisis situation into a pleasureable one, which not only helped the individual pregnant woman, but had the overall effect of aiding in the community's adjustment to their new way of life.

This work would not have been possible were it not for the enthusiasm of all the people involved, and the pleasure we all received from working among this group. To the Nurses Mills and Lewis go my hearty thanks; as well as to Dr. Rootenberg and her devoted staff at the 'Imahut' Nursing Home; last but not least to the physiotherapist, June, whose contribution towards happy motherhood will long be remembered by all concerned.

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HEALTH IN A WIDER CONTEXT

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In a sense there is no such thing as the correct use of words since words are our servants, not our masters, and must conform to the meaning we choose to bestow upon them. Thus over the generations, and these need not be many, we can observe the evolution of a word. Of this process the changed meaning of "sanitary" provides a good example. Here, of course, there has been a debasement, and it would be a pity if the word "health" underwent a similar decline. There is a real danger of its doing so. Many people have observed that the National Health Service Act would have been more aptly entitled the National Medical Service Act and a similar criticism may not unjustly be made against the Mental Health Act, whose general trend and outline are already well known. In both these contexts the implication of "health" is freedom from disease so that its attainment is made equivalent to the treatment of illness, or even to the availability of facilities for such treatment. In reaction against this point of view the expression "positive health" has come into fashion. One knows what it means, but it is really tautological, since health as properly understood cannot be other than positive.

Attempts have not been wanting to define health as a positive concept and W.H.O. have stated it in effect as being the full development of the personality. Some of us may think that the definition is too narrow in the aspects of personality it enumerates, but we must remember that it was framed to please people with widely different philosophical presuppositions. Another definition, which has been attributed to Herbert Spencer, is that of complete adaptation of the individual to his environment. From one point of view it is superior to the more recent attempt of W.H.O. because it can fit all forms of life, the lower as much as

the higher and the parasite as well as its host. It also reflects the thought of the nineteenth century with its emphasis upon the individual. We are now at least as much concerned with the community, but the two points of view are not mutually exclusive since there can be no communal well-being without the health of at least the great majority of the units of whom the collectivity consists. The ultimate philosophical responsibility of public health must therefore be this : to consider the circumstances of that environment by adaptation to which all or most of the individual human persons within it can achieve their maximum self-development.

Our terms of reference are, of course, human. The environment we aim at creating is explicitly unhealthy for pathogenic parasites, metazoic, bacterial and viral, and it may with varying degrees of effectiveness be adverse to forms of life which, without being directly inimical to mankind, compete for the available food supply. Man, whether on Mosaic, Sophoclean or evolutionary principles, regards himself as the supreme denizen of this planet, to whose interests all other creatures are naturally subordinate.

In our own days the circumstances of a healthy physical environment are understood, if by no means completely, very much better than they used to be. We have only to think of the hazards of infectious diseases in the past and compare them with the present situation in this country to find an example of that ; indeed, our success to date in this respect may easily blind us to some other equally significant factors. Pasteur's discovery gave meaning to a good deal of earlier effort and opened the way to further advances, but we can also think of it as obliterating for the time being reminders for enquiry in other directions and these are now demanding our attention. Pasteur was not personally to blame, as he did not expect to confer more than a limited benefit, but he lived in an age of immense optimism, when the entire conquest of the world by man was looked upon as only a matter of time. To-day we are less certain of ourselves.

A writer who wishes to appear scientific, must avoid value-judgments and there is no meaning in such a context to ask whether people to-day are " better " as a result of these, Pasteur's and others', conquests of nature. Materially they would certainly appear to be " better off ", at least within the frontiers of Western civilisation, and to a quite considerable extent outside them. Our growing concern with mental health shows us, however, that there are wide areas of human thought and behaviour where adaptation

has not been made. We need to scrutinise rather carefully the environment we have inherited and are creating to decide whether it is really what we want. We all know as an elementary truth that money cannot buy happiness though it may allow us to be miserable in comfort. We may also wonder whether a physically "fit" generation is as healthy in respect of all the axes of human personality as some others with many fewer material advantages. For individuals, we probably all know of examples who illustrate and answer this question in the unexpected manner, and we may take the universal incidence of anxiety as a recognisable symptom among the many of failure to adapt.

W. H. Auden named one of his collections of poems *The Age of Anxiety*. It was published in 1939, but he would be unlikely to regard us as any less anxious now than then. The rising generation may well be more or less inured to the threat of war, like Neapolitans to Vesuvius, but to the worker in the public health service the ravages of anxiety in personal relationships are only too obvious. They arise from anxiety at work, at home, with one's fellows, so that the recourse to violence, individual and collective, can be almost a relief. The family, where surely man should be most secure, is a fruitful field of misery in this respect, of which the widespread unpopularity (i.e., failure) of breast feeding may be a more profound index than at first sight appears. Parents, insecure in the intrinsic dignity, indeed sacredness, of their office, are anxious about their children, seek to shelve their responsibilities in bringing them up, begin with uncertainty about them and end with positive fear, like the wretched people in Orwell's "1984". No age has seemed more sex-obsessed than our own ; but everyone knows that the man of hearty and well satisfied appetite never gives a thought to his digestion. The same pattern repeats itself in other contexts.

Writing in the early years of the present century, Dr. Richard C. Cabot of Boston, Mass., gave a graphic representation of the healthy personality which, while clearly not giving all the answers for the physical environment, was fairly complete for the mental sphere. He described it as a cross with arms of equal size, labelled respectively Work, Play, Love and Worship. Symmetrical development in them all he regarded as essential for the average, normal human person and if he had written in the terminology adopted in this article he might well have said that the healthy environment we should aim at creating must allow for fulfilment in these four respects. It will be immediately clear that each heading

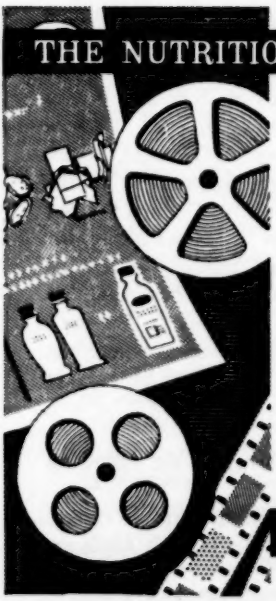
presents a peculiarly searching challenge for our time.

Work to be rewarding needs to provide more than a living wage, or even a wage ample enough for those luxuries of yesterday which tend to become the necessities of to-day. Work ought to be of value in itself as a job worth doing, and this seems fated to become an ever more illusive goal in an industrial society that asks for less and less co-operation from the worker at the conveyer belt. Play, too, ought to be a real *re-creation* of mind and body by some change that is a rest however active and even strenuous it may be. In this respect one may compare playing games with watching games, collecting things with listening to others describing their collections, the child whipping a top with the child peering at television. And here, of course, we reach the great problem of leisure, recognised now as being a much more frustrating gift of the scientific age than it can have appeared to Dr. Cabot.

Of love in its several aspects, a note has been made already, but when we talk about security at home we need to relate the question to a peculiar problem of our time. The immigrant and the refugee have always been awkward guests in the society of their adoption and have tended to become a source of exasperation however sympathetic their neighbours may have felt towards the circumstances which drove them from their native land. Their behaviour difficulties arise, of course, from the same root as those of the deprived child—the loss of people among whom, a place where, they belonged. Rehousing in satellite suburbs and new towns, the moves of individual families to follow employment, are having the same effects upon a large section of modern society at all economic levels, with a consequent breakdown not only of the family in its wider (and important) context of grandparents, uncles, aunts and cousins, but of the familiar associations of churches, shops, clubs and pubs from which the pattern of a stable culture derives. Such communities are truly forlorn. They adopt as a matter of course the self-sufficiency and neighbourlessness for long regarded as the least admirable characteristic of some members of the middle class, and this loneliness is made worse by an isolating, passive form of recreation like television.

Worship is the Cinderella of our contemporary society, not because no-one is interested in it (much the reverse), but because it is bad taste to talk about it. The irreligious seem to assume that if only other people had faith all would be well with them and with the world, as though lulled in a vast feather bed. The experience of those who make some attempt to practise religion refutes this

facile solution, since in fact they find their environment complicated by another axis with reference to which they are expected to co-ordinate their lives. And that is neither easy nor soft. At the same time they have no hesitation in recognising here a need in its own right of the human being that is as great if less consciously urgent than food or sleep or sex. They discern a clue that makes sense of the other aspects of life as well, giving value to work, a motive to play and security to love. They recommend it to their fellows not as an option, but as an obligation, not because it promises any quick reward, but because it demands all one has and is, and hence because it is supremely worth while.



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FLUORIDATION ROUND THE WORLD*

By GERALD H. LEATHERMAN, D.M.D., F.D.S.R.C.S.
Secretary General of the Fédération Dentaire Internationale,
and J. A. ELLIS, M.A., Assistant to the Secretary General
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Attitude of the official health authorities towards fluoridation.

A POSITIVE ATTITUDE to the question of fluoridation has been adopted by the majority of health authorities throughout the world.

A very definitely positive attitude in favour of fluoridation has been adopted by the official health authorities in : *Austria*, although a few State authorities are undecided ; *Canada* ; *Great Britain*, where the Government has gone on record through the Minister of Health in the House of Commons approving fluoridation as a proven public health method of prevention ; *Greece ; German Democratic Republic ; Hong Kong ; Republic of Ireland*, where the Government has indicated its acceptance in principle of the recommendations of the Fluorine Consultative Council ; *New Zealand*, where the Department of Health is campaigning for fluoridation and the Minister of Health has publicly stated his support of fluoridation, although the Government has made no pronouncement either for or against the measure ; *Norway ; Spain ; U.S.A.* and *Yugoslavia* (Republic of Slovenia) where the political as well as health authorities are financially supporting fluoridation and propagating it.

A FAIRLY POSITIVE ATTITUDE is shown in the following countries :

Australia.—The position seems to vary from State to State. Following the submission of a report by the Dental Advisory

*The first part of this survey appeared in *Health Education Journal*. May, 1959, p. 131.

Committee of the National Health and Medical Research Council, that Council at a meeting in December, 1953, passed two resolutions. The first was a general statement on the benefits of fluoridation and the second a recommendation that each State Health Department set up an Advisory Committee " to review, advise on and supervise proposals for the addition of fluoride to communal water supplies ". In May, 1957, the National Health and Medical Research Council reaffirmed its previous decision in relation to fluoridation. The position in the individual States is as follows : In New South Wales, the Fluoridation of Public Water Supplies Act was passed in 1957 to regulate the fluoridation of water supplies by water authorities and local government bodies. A Statutory Committee has been established under the Act and this Committee will advise municipal authorities on all aspects of fluoridation procedure. The Queensland Health Council, the body responsible for health publicity in the State has actively promoted fluoridation. In Tasmania the Department of Health Services has undertaken to assist municipalities financially with the establishment of schemes for the fluoridation of public water supplies. In Victoria fluoridation was recommended by the Health Commission to Cabinet in 1955 on the findings of an Advisory Committee appointed by the Minister of Health. Since then no action has been taken at governmental level, although many members of Parliament are very interested. On the other hand in the States of South and Western Australia no Advisory Panel has been set up by the respective governments.

Belgium.—The Belgian Ministry of Health's attitude to fluoridation is generally expectative but disapproves on principle of the action of the pharmaceutical firms in campaigning for the administration of tablets in schools without adequate control.

Czechoslovakia.—The Ministry of Health of Czechoslovakia demands that before water fluoridation can be brought into operation, the effect of it on health under local conditions must be ascertained.

Northern Ireland.—In this country ministerial policy has been stated as being to await the results of the control demonstrations in progress in Great Britain and the Ministry is represented on the appropriate Steering Committee. Ministerial policy has also been to keep County and County Borough Medical Officers of Health informed of fluoridation developments, and some Medical Officers of Health have shown themselves specially interested. Several of the Chief Dental Officers have expressed themselves as being

strongly in favour of the introduction of fluoridation at an early date, as has also the Dean of the local dental school.

Italy.—The health authorities show a positive attitude in that they favour the administration of regulated fluoride as a prophylactic measure, but they are opposed to the fluoridation of public water supplies.

Switzerland.—The Swiss Federal Public Health Office has issued regulations for the fluoridation of drinking water. The Cantons are entitled to introduce fluoridation of water. A corresponding resolution must be carried by the municipal authorities. These authorities are, however, very reserved, tending to advocate individual measures by means of tablets or table salt. A possible reason for this attitude may be the extensive advertising by the manufacturers of the tablets.

Union of South Africa.—The official health authorities in this country, such as the Public Health Association, the National Nutritional Council, the Medical Association, have all accepted the need for fluoridation, but all these bodies are awaiting results from other countries before deciding on any action.

AN UNDECIDED ATTITUDE seems to be the case with the health authorities in the following countries :

Denmark.—The authorities although undecided are tending to a positive attitude.

Egypt.—The fluoridation question has aroused great discussion.

Finland.—The State Medical Board is at the moment undecided on the question.

France.—The authorities appear to adopt an attitude if not negative, at least hesitating.

Japan.—The authorities take a growing interest in the problem but are still undecided in their attitude.

Hungary.—The attitude of the official Hungarian health authorities is undecided and inactive but recently it seems to be becoming more positive.

Netherlands.—Results of the experiment in Tiel are awaited and the Minister of Health is undecided. In general, the health authorities in the Netherlands are in favour of any caries preventive measure which has proved its usefulness.

Sweden.—The official health authorities in their statements to the Minister of the Interior have expressed varying opinions regarding the advisability of fluoridating drinking water. A committee consisting of medical and dental experts recommended

water fluoridation on an experimental level (1953) and an advisory committee consisting of three dental experts decided with 2 against 1 in favour of water fluoridation under strict control both technical and medical (1958). The Medical Board showed a directly positive attitude towards this scheme, despite doubts (scientific and ethical) brought forward by some authorities. The issue is however still undecided.

A NEGATIVE APPROACH PREDOMINATES in certain cases.

German Federal Republic.—The attitude of the official health authorities towards the fluoridation of drinking water is generally negative. The health authorities honestly consider the addition of fluorine as dangerous, as fluorine is only harmless in small quantities, and that there exists a possibility of over-dosage as a result of human incompetence. Even carrying out research on fluorine required prior official approval. Children can only be used in experiments with the written consent of their parents and these experiments have to be carefully supervised by the Health Authorities. It should be pointed out that in the *State of Hesse* the Health Authorities adopt a *positive* attitude to fluoridation. The programmes being carried out in this particular State will be augmented by means of tablets.

Indonesia.—There are various reasons which might account for the negative attitude on the part of the health authorities. The dental public health department is a new department in the Ministry of Health, which has never existed in the pre-republic period and is still in its infant stage of development. It is in great need of qualified dental personnel. There are no experts for the fluoridation of drinking water and insufficient personnel to practise fluoridation by the topical application method. Furthermore, fluoride has to be imported and only a few big cities have a central water supply.

Latin America.—In this region as a whole, there appears to be absence of initiative or a better understanding on the part of many health authorities, as well as the absence of any movement to stimulate the interest of the municipalities. Some factors which may have had an influence on this are the low running and maintenance standards in most public water supply services, which relegate fluoridation to a secondary position. Salt and dispensers—apart from a few in Brazil—are not produced in Latin America and in view of the present unfavourable exchange rates, their importation presents certain difficulties.

Attitude of the medical and dental professions

BOTH THE MEDICAL AND DENTAL PROFESSIONS ENDORSE the policy of fluoridation in *Australia*, *Canada*, *Czechoslovakia*, *Egypt*, *Finland*, *German Democratic Republic*, *Great Britain*, *Greece*, *Italy* (opinion inclined towards prophylaxis by the administration of a dosage of fluoride and its topical application to the teeth), *New Zealand*, *Norway*, *Sweden*, *Union of South Africa*, *U.S.A. and Yugoslavia* (Republic of Slovenia). In the case of Sweden it should be mentioned that there is a slight tendency for the medical profession to adopt a "wait-and-see" policy.

THE MEDICAL PROFESSION IS HESITANT, although the dental profession does all in its power to promote fluoridation, in certain other countries. Such is the case in *Hong Kong*, where the dental society has been urging the Government to initiate a fluoridation scheme since 1953, but the medical profession, although not opposed to the measure, has not shown itself very interested in spite of a number of approaches by the dental society as part of its campaign for fluoridation.

In the *Republic of Ireland*, the medical profession, as a profession, has not committed itself. Its representatives on the Fluorine Consultative Council agreed with the Council's favourable report. Similarly, the medical profession as a whole has no standpoint in the *Netherlands*.

In *Switzerland* the Swiss Dental Association and the majority of dentists advocate the fluoridation of drinking water, but they receive little support from the physicians, who in most instances are insufficiently informed or misinformed. Efforts have been made to try and awaken interest amongst doctors by joint meetings of medical and dental societies. Adversaries of fluoridation have extensively published material in the medical journals.

In the following countries, it is difficult to classify the attitudes of the profession into particular categories :

Austria.—The members of the Viennese Medical Faculty adopt a more positive attitude towards fluoridation.

Belgium.—It is difficult to speak of an attitude of the dentists and doctors towards fluoridation. Individual opinions are very often found, which are not based on a critical examination of the scientific data available. This lack of information results from several causes, which are interesting to analyse. Firstly, the statistical character of the arguments used in the works on prophylaxis discourages the doctors and dentists who have no

training in statistics. Consequently, for lack of an objective evaluation of the facts presented, they react according to their temperament and they form an opinion without any real knowledge of the subject in question. The most enthusiastic, blinded by figures, credit prophylaxis by fluoridation with virtues it does not possess, thus paving the way for the disappointment of themselves and of those who listen to them. The sceptics, who are more numerous, go no further than to quote the English saying : " There are lies, damned lies and statistics." Secondly, the pharmaceutical campaign in Belgium in favour of certain kinds of fluoride-prophylaxis engenders in the doctors and dentists a degree of mistrust, which unfortunately spreads from material of an advertising nature to that which has a more scientific value. It is in the field of nutrition and alimentation where a more enlightened attitude is to be found.

Denmark.—No official stand has been taken by the medical profession, although a few letters to medical journals from individual physicians indicate some opposition. No opposition is known in the dental profession.

France.—A divided opinion on fluoridation prevails amongst dental and medical practitioners.

German Federal Republic.—The dental profession appears to be rather neutral in its attitude to fluoride-prophylaxis. It was astonished to learn of the favourable results of fluoridation research recorded in foreign countries. An investigation was undertaken immediately, but the high percentages recorded in the U.S.A. were not attained. It could be stated that a certain measure of the improvement in dental health is due to the natural improvement of oral hygiene accompanying fluoridation measures and to the dental health education of children and parents. In general, the German dentists consider fluorine as a means of reducing caries, but only one among many others. They prefer to apply fluoridation by means of tablets and carry this out to some extent in their practices. Some dentists prescribe fluorine and other trace elements by means of tablets to young children and expectant mothers, though to what extent cannot be estimated.

Hungary.—Doctors engaged in scientific work favour fluoridation. On the whole the attitude of the practising dentists is more neutral. The shortage of dentists, and the fact that dental services are extended almost free of charge to nearly the total population (fillings free of charge, prosthetic appliances some charge made) with the result that the profession is unable to cope with the increased

demands would tend to incline the profession towards fluoride-prophylaxis.

Indonesia.—The Indonesian medical profession appears to pay no attention at all to the problem. The dental profession has not yet paid enough attention to it because material is not available in Indonesia and therefore to date it has only been an academic problem.

Northern Ireland.—No particular interest has so far been shown by the general body of the medical and dental profession, but they have not as yet been specifically canvassed.

Japan.—Neither profession takes up a positive or negative attitude.

Attitude of the general public to the fluoridation problem

In the majority of countries for which information is available the general public is not much interested either for or against fluoridation. Even in countries where the principles of fluoridation are more extensively practised, there is usually a small minority loudly voicing its protests. The attitude of the public in the various countries is as follows :—

Australia.—A Gallup Poll result published in September 1957, was as follows :—64% of the people were in favour of the addition of fluoride to the water supply for the partial control of dental decay (54% unqualified approval ; 10% with reservations) ; 14% were opposed to its introduction and 22% were undecided. The Association of Apex Clubs has been responsible for interesting a number of towns in Victoria in fluoridation. Not one objection to fluoridation has been received from the people of Yass. The only objections received by the Council have come from Anti-Fluoridation Associations in some of the Capital Cities.

Austria.—According to experience in different regions of Austria, where fluoridation has already been introduced, the majority of parents are in favour of fluoridation. Repercussions always arise when the daily newspapers publish anything about the effects of fluoridation. A considerable amount of publicity will be needed to convince people that fluoride-prophylaxis is valuable and it has been recommended that this should be one of the tasks of the sub-committee on " Youth Dental Care ".

Belgium.—In general, the Belgian people is not informed about fluorine and the possibility of caries prophylaxis. This attitude resulting from ignorance about scientific research in the dental field prevails even in scientific circles. Indeed, one of the most

distinguished scientists in Belgium has said, "I go to the dentist as I do to the hairdresser, expecting no more from him than the correction of an actual condition". On the other hand, where experimental fluoridation is being carried out, instructional meetings have been held and the general education of the public is being organised in the best possible manner. The method of approach in these regions seems to the Belgian Research Committee to be of a rather exceptional quality which may make it interesting for those who would like to undertake experimental fluoridation.

Canada.—The Canadian Dental Association has distributed most of the educational material upon the subject. The Association's policy from the beginning has been only to make statements which have been scientifically proven. A number of organisations have sprung up in this country, as in the U.S.A., which distribute literature containing wild, unfounded statements calculated for the most part to throw fear into the minds of the people. The result is that many of the public become confused. This is the reason for defeat in municipal plebiscites. The Association is of the opinion that the truth will win out in the long run.

Czechoslovakia.—The population shows a great understanding of the question of prevention. In no individual case has a basic mistrust of fluoridation been met with. It is therefore not anticipated that there will be any difficulties when fluoridation is introduced on a large scale.

Denmark.—It is impossible to estimate public opinion because no extensive discussions have taken place. Recent newspaper comments on the Government Committee Report have been largely favourable, but certain small groups such as the Health League, Vegetarians etc., have protested.

Egypt.—The public is rather hesitant and is inquisitive regarding the effect of fluoridation on agriculture and its products and on the animal kingdom and its effect on growth, lactation and meat production.

El Salvador.—No publicity was given to the Santa Ana project for fear of rousing local opposition.

Finland.—The public is indifferent.

France.—The French people pay hardly any attention to the problem of the fluoridation of drinking water.

German Democratic Republic.—In the State of Halle, people show a growing understanding of the problem. The consent of parents was given in 98% of the cases before fluoride-prophylaxis

was started.

German Federal Republic.—The public is kept informed, mainly by the press, about fluoridation. Some are for, some against. Some parents, the number of whom cannot be estimated, use fluoridation in collaboration with their doctor or dentist. Advertising by the manufacturers of fluorine preparations is also directed at the individual.

Great Britain.—The British public at large has not been called upon to express an opinion for or against fluoridation, the decision to introduce it in any area being taken by their elected representatives, the members of the local councils. As in the U.S.A., a small but highly vocal minority has been instrumental in creating opposition which has expressed itself through correspondence in the local press in areas where fluoridation has been undertaken, and in one instance resulted in the decision to fluoridate being reversed by the local health authority.

Greece.—The public has no attitude to the fluoridation question.

Hong-Kong.—The general public is not very much interested either for or against fluoridation, although there have been some sporadic outbursts of anti-fluoridation letters, but not recently.

Hungary.—The general public does not know very much about fluoridation. So far as is known, the attitude is favourable. There is generally some fear of dental treatment and the public hopes that by this preventive measure the individual need to visit the dentist should be decreased.

Indonesia.—The general public does not know about the existence of fluoridation.

Northern Ireland.—Fluoridation is not thought to be a lively topic of interest to the Ulster general public at the present time. There have been two Parliamentary questions on the subject in the Ulster House of Commons, and the subject has also been written up in the local press on several occasions, and there has been some controversy in its correspondence columns, although mainly from outside contributors.

Republic of Ireland.—The public at large has not expressed its views. The usual body of objectors have expressed their objections by way of letters to the Press, etc. The number of objectors was not large, but it appears that objections on ethical grounds were made by some Catholic groups and by a number of the Society of Friends.

Italy.—Public opinion has not yet taken an interest in this problem and it was hoped at the national stomatological meeting

this year to present the problem of dental prophylaxis, including fluoride-prophylaxis.

Japan.—As information about fluoridation is very rarely offered to the general public, they are not concerned about it.

Netherlands.—The lay public in general has no opinion. The newspapers were asked not to discuss fluoridation, but this request did not come from the Netherlands Dental Association, which is of the opinion that when drinking water is to be fluoridated, much resistance will have to be overcome in the purely sociological field, which makes it necessary to start educating the nation at the earliest possible stage. The small group of homeopathics object to fluoridation and when fluoridation becomes a topic for discussion in the Netherlands it has been suggested that perhaps some religious groups will also object to fluoridation.

New Zealand.—The attitude of the general public is unknown. A highly organised vociferous group opposes fluoridation whenever the issue is raised, but it is impossible to judge what following this group has. Several major cities have made their decision to fluoridate without putting the matter to popular vote.

Norway.—The general public is to a certain degree opposed to the principle of adding any substance to the drinking water except those used to purify the water. It is furthermore expected that there will be a court action against the municipal body in the town where fluoridation equipment is being installed.

Sweden.—The fluoridation question has not yet been widely discussed by the general public. Consequently, up to now only the voices of those against fluoridation have been heard. It is possible that the general public has been considerably scared by alarming newspaper articles on the alleged danger of fluoridation.

Switzerland.—Authorities on the subject have often tried to enlighten the public by articles in the daily press. On the other hand, news reports on damage caused by fluoride from fumes in the neighbourhood of aluminium factories have caused an unfavourable impression on the public. One of these factories is situated in Switzerland, the other just across the border in Germany. The public has, up to the present, had no opportunity to utter its opinion on the question, no voting having taken place on fluoride prophylaxis. A few opponents have written in the press, mostly people from circles of diet-fanatics. Well-informed circles try to enlighten the population by means of the press, radio, etc., on the usefulness and innocuity of fluoridation, particularly water fluoridation.

Union of South Africa.—As far as the public is concerned, fluoridation has received very little publicity in this country, and consequently the man-in-the-street has no knowledge on the subject and is unable to express an opinion.

United States of America.—The attitude of the American public in general supports fluoridation, as is borne out by the extent to which the principle of fluoridation is implemented. A small vociferous minority without the support of scientific evidence opposes fluoridation. This opposition is apparently diminishing. In communities where efforts are still being made to fluoridate the communal water supply, a programme of education is carried on by the professions in an effort to acquaint the public with both the safeness of the procedure and the benefits to be derived. Although a slow process it is felt that the acceptance of fluoridation is gaining momentum. President Eisenhower's statement relating to Children's Dental Health Week this February, addressed to the President of the American Dental Association said : " It is fitting to note the recent development of measures, including the fluoridation of wate supplies to prevent tooth decay in the early years of growth. I invite the attention of the public to the study of such programmes in this field and I urge all citizens to co-operate in such measures as will lead to the improved dental health of our children and youth."

Yugoslavia.—The people of the Republic of Slovenia are informed by the newspapers and have a very positive attitude towards the problem.

Conclusion

Although the Fédération Dentaire Internationale, which represents forty-five countries, through its legislative bodies in Brussels, June 16th, 1951, and Oslo, August 1st, 1953, accepted the following resolutions :

> " *Whereas* extensive scientific evidence has been collected for more than two decades testifying to the efficacy of the use of fluorides in the control of dental caries, possibly the most prevalent disease in the world to-day, and
> *Whereas* the extensive fluoridation of communal water supplies and the wide-spread utilisation of topical fluoride applications provide statistical evidence of a high level of dental health for the oncoming generations : therefore, be it
> *Resolved* that the F.D.I. urges all agencies interested in dental and general health to give most careful consideration to the promotion and use of fluorides in the control of dental caries, and be it further
> *Resolved* that the F.D.I. strongly urges all nations to focus their attention and resources on the prevention of dental caries through

effective programmes of oral hygiene rather than on a programme of unending terminal treatment for persons already dentally disabled by neglect and disease. (Brussels, 1951).

and

" At the Annual Meeting of the F.D.I. in Brussels in 1951, the Federation urged that all agencies interest in dental and general health should give most careful consideration to the promotion and use of fluorides in the control of dental caries.
The Federation at its meeting in Oslo, July, 1953, affirms that there has been no evidence of any deleterious effect to general health by the addition of fluorides in appropriate amounts to drinking water ".

it is interesting to note that apart from the U.S.A. and Canada, the principles of fluoridation, particularly in its application to drinking water, do not appear to be implemented on a national scale in any country with Government support. However, Chile has prepared a country-wide 4-year fluoridation plan and Czechoslovakia is ready to go ahead shortly with fluoridation on a large scale. Despite the fact that both the U.S.A. and Canada have accepted the statistical and scientific evidence produced during the past fourteen years to prove that fluoridation of drinking water at an optimum level of 1 part per million fluoride is a satisfactory method of reducing the incidence of dental caries, especially amongst school children, several countries have considered it necessary to establish their own experimental areas to find out the effects of water fluoridation under their own specific conditions. As mentioned, the German Federal Republic did not attain the same successful results recorded in the U.S.A., whereas in the majority of other countries conducting experiments where results are now available, generally favourable results are being obtained. It is of interest that the Netherlands Dental Association is seriously considering whether the time has not come to proceed to practical measures in the field of fluoridating drinking water and whether it is justified to wait for years for the result of a specific Dutch experiment in this matter. The Association is deliberating whether there is not sufficient evidence from the U.S.A. that fluoridation of drinking water is an effective method of decreasing caries incidence.

In addition to the period of waiting for the results of experiments to be known, other factors may be influencing the spread of fluoridation in the various countries. In Latin America, for example, finance is a difficult problem. In several countries of the Middle East lack of a piped water supply prevents the implementation of any water fluoridation project. Australia also has its own peculiar problem in that many water supplies in the country are

so pure that water treatment plans are not necessary. The cost of installation is therefore correspondingly higher than in centres where personnel is available for such duties. Consequently, finance is always brought up as one of the stumbling blocks against fluoridation. Due to a rapid increase in population in Australia in postwar years, because of a vigorous migration programme, essential services such as roads, schools and sewerage have lagged behind needs, and both government members and the public at large tend to regard these as having a higher priority than fluoridation. Furthermore, there are many areas in the world where the natural fluoride content of the water may be sufficient in view of climatic conditions, although it is lower than 1 p.p.m. Similarly, other areas require de-fluoridation.

As it would appear that fluoridation in those countries where it will eventually be put into practice on a fairly large scale is not a topic of general interest to the public and only small groups are voicing their opinions against it, would it not be wise to educate the public regarding the benefits to be obtained from fluoridated drinking water by preparing some form of education programme as in the U.S.A. ?

BOOKS

TRAINING FOR SOCIAL WORK : THIRD INTERNATIONAL SURVEY (United Nations. 1958. Pp. 349. Price 18s. from H.M.S.O.)

Anyone who is looking for a blueprint or handbook for social work training will find that this Survey is not just a factual account of recent developments in different parts of the world. Its purpose is to give a general idea of the content and methods of training as this is beginning to emerge internationally, and to review the various problems associated with improvements in training. The initiative is left to those agencies and training institutions who may use this book to select and combine the material within this broad framework which seems most relevant to the particular needs of their countries.

The preparation of the Survey was undertaken by a special consultant, Miss Eileen Younghusband, who is internationally recognised as one of the foremost leaders in social work education, and the material was collated from the findings of a meeting of experts at Munich in 1956 and of the regional seminars which followed at Montevideo, Lahore and Athens in 1957 and 1958. The Survey is concerned with the following aspects of training :—

I. The changing functions of the social worker ; II. Historical background and current trends ; III. Content ; IV. Educational methods; and concludes with suggestions to improve and strengthen training for social work.

R. E. MALE.

HEALTH EDUCATION MONOGRAPHS No. 3. (Society of Public Health Educators, Inc., 121 East 11th Street, Oakland, California, U.S.A., 1959. Pp. 31. Price $1.00.)

This third Monograph contains papers entitled " Motivation for Community Organisation ", "A Theoretical Framework for Community Organisation" and " The Influence of Values on Evaluation ". Hidden and disguised as they are in a " jungle of jargon " one may extract some thoughtful points for consideration and discussion from these three short papers.

The use of " jargon padding " in professional literature from the New World seems to be an increasingly retrograde tendency, and it is a pity to see it in the modern studies of how and why people and their groups act as they do. The solution of these papers is similar to that of an untried crossword puzzle, or the appreciation of a corrugated iron sculpture . . . it is difficult and time consuming, but we reach, perhaps, some appreciation of value in the end.

These ideas concerning social and individual values, what we and the group want, or need, or desire, are of importance in the field of health education. If we " translate " some of them we may find that they will be of use to us in the health education of the individual and the group.

D. L. PORTER.

TRAINING FOR HEALTH EDUCATION IN THE SOUTH PACIFIC, by Morven S. Brown. (South Pacific Commission, Noumea, New Caledonia. 1958. Pp. 72. Price 4s.)

This booklet is the story of a training course in Health Education for South Pacific Health and Education Workers, sponsored by the World Health Organisation and the South Pacific Commission.

It gives details in attractive style of the origin, planning and aims of the course, its organisation, work and evaluation and follow-up. For such a course, the first of its kind in the Pacific, the staff planning arrangements are of interest. " . . . . . It would have been easier simply to have announced to the staff a neat and completed plan of training . . . . . this procedure was not followed for two reasons. It was wise to let the final planning wait on a probing of the collective knowledge of the staff members regarding the problems of the different territories and the backgrounds of the trainees themselves. It was also necessary to secure the fullest agreement about the methods to be followed." By rejecting

most purely didactic methods the planners wisely considered first the staff education with the more imaginative and effective methods, but methods with which the staff themselves may have felt insecure without preliminary discussion and training.

Although the picture is very different from that of this country, much of this report is of fundamental importance and of general interest to all conference directors.

D. L. PORTER.

PERSONAL AND COMMUNITY HEALTH, by C. E. Turner. (Henry Kimpon. 1959. Pp. 446. Illus. Price 41s.)

This volume is now in its eleventh edition, and has been brought up to date. It is full of good reference material and concerns all the fields of personal health from mental health to safety, and community health from school health to public health through voluntary effort. Being an American publication its examples are drawn from that culture, but this is no disadvantage as it is well constructed, well illustrated, and written in good English style. It will be a useful health education volume to add to the college library, as it is a comprehensive and thoughtful study in health education.

D. L. PORTER.

MY FIVE ALL WENT TO GRAMMAR SCHOOL, by Victor Meek. (Victor Meek, Holcombe Rogus, Wellington, Somerset. 1959. Pp. 100. Price 4s. 6d., or 5s. post free.)

Although the acme of parental success may not be having "five in a grammar school" it is a pointer to a certain standard of co-operative achievement in family life. This book will help parents solve some of the problems concerned in the education and upbringing of their children. It shows that for a child to get the most out of schooling, and the family, he not only needs extra lessons and help from parents, but also the care, love and security of a good home, that will leave his mind free to absorb all the new thoughts and knowledge surrounding him. If all parents would have the patience and skill of the author, they would certainly lay a worthwhile foundation on which their child could build. The framework of this booklet is attractive and shows that the author has a keen sense of what is educationally right and philosophically sound.

Early days, grammar, essays, discipline, economy and family behaviour have their chapters, which emphasise the need for trust, understanding, and serenity in the happy and successful home. There is much to discuss and criticise in the pages, but it is a sincere and sensitive story which rings true to life.

B. M. EL HADI.

RACE, PREJUDICE AND EDUCATION, by Cyril Bibby. (Heinemann. 1959. Pp. 90. Price 7s. 6d.)

In a world whose population is already overburdened with stresses and strains, racial prejudice contributes its unnecessary quota of tension and strife. The author performs a valuable task in helping to remove unreasoned prejudices.

Rarely has so much instruction and wisdom been contained in such a small compass. In less than a hundred pages the author deals with every facet of the subject, biological and anthropological as well as psychological and social. Clearly, he cannot give detailed information on all these important themes, but what he does say is accurate, concise and to the point. There is an excellent guide to further reading on any aspect which interests the reader particularly.

The most valuable for teachers are the last few chapters dealing with the psychological and social basis of race prejudice. After giving many useful suggestions on raising these matters in class and dealing with them effectively, the author himself says: "It is not by a single set lesson that the teacher can eradicate prejudices deeply rooted, but only by the infinitely patient reiteration and exemplification of truth wherever and whenever the opportunity offers".

The book is mainly directed to teachers, but the author also shows how both teachers and pupils can help to combat the influences in the community which promote the colour bar. It is a patient, wise and humane little book, which is well worth reading and studying.

S. LEFF.

THEY STEAL FOR LOVE. An Experiment in Education and Psychiatry with Children and Parents, by Anthony Weaver. (Parrish. 1959. Pp. 132. Price 12s. 6d.)

This is a human story of success and failure. It is by these we learn, and this story may tell us much of interest about handling of pre-delinquent children and their parents. It is a story of deprived children, and is told with very human understanding and insight by the Warden of a home for children beyond control or those convicted of an indictable offence. Many of the children went out to new life, but many were again overcome by the seemingly impossible difficulties of the homes to which they returned. Living in their groups in the home gave the children a position in the community for the first time, where there was an atmosphere of love, solidarity and understanding. On returning home the families found it impossible, or were unwilling, to make the necessary readjustments. In this case the only failure was the inability, through no fault of their own, to re-educate those remaining at home. This book will be of much value to those who are striving to break down this "chain reaction of family delinquency" and to build up the family group.

D. L. PORTER.

ODD MAN OUT: HOMOSEXUALITY IN MEN AND WOMEN, by Eustace Chesser. (Gollancz. 1959. Pp. 192 Price 12s. 6d.)

Little new thought or material can be found in *Odd Man Out*, but it is written in a very readable fashion, and will be a considerable help to all concerned with the care of children and with those who have this defect, so strange and sometimes abhorrent to the "normal" and uneducated. Much has been said and written of the effect of heredity and environment in this connection, and there is little doubt that if parents and those concerned in the early nurture of children realise their immense responsibilities, much that heredity may have given can be controlled and a stronger personality can be built up. The problem does not seem to have been tackled very successfully from the health education point of view, except through the general health education for good mental health and human relations. This book, following the Wolfenden Report, will do much to help change the atmosphere with which the subject is charged. Again, in this world where roles may so easily be reversed, it is more and more important to emphasise the role of men as fathers and husbands and the role of women as mothers and wives. This book may be part of an educational campaign, and if it helps to set the scene and prevent some of the personal tragedies that have occurred, it will have made a worthy contribution. It should have a place in public libraries and in the sixth form as "resource material" for discussion.

D. L. PORTER.

INSULIN TREATMENT IN PSYCHIATRY, edited by Max Rinkel and Harold E. Himwich. (Philosophical Library, New York. 1959. Pp. 386. Price $5).

This volume presents the verbatim report of the papers and discussions during an International Conference on Insulin Treatment in Psychiatry, which was held at the New York Academy of Medicine in October, 1958, some 30 years after this therapy was first introduced by Manfred Sakel.

More rigorous editing might have shifted the emphasis of this book more towards the biochemical and physiological studies which have been stimulated by the use of hypoglycaemic comas in the treatment of schizophrenic patients, and it would also have clarified the texts and tables offered by some contributors who felt handicapped by having to use English. However, as it stands, this book epitomises the spirit pervading the insulin era in the treatment of schizophrenia, and transmits the enthusiasm of its past and present proponents in tackling an illness regarded as occasionally recoverable, but never curable.

As in the past, there are among these papers some which claim not only immediate recovery in 80-100 per cent of recent cases, but also very low relapse rates, and these successes (and by implication the failures of other workers) are ascribed to technical excellence in the administration of insulin comas and the use of adjuvant measures, such as convulsion, drug therapies, and psychotherapeutic management. Critics of insulin treatment were either not invited, or failed to appear, but even so there are in the

discussion occasional references to methodologically sound investigations which have cast doubt on the long term value of insulin therapy, or which point to the advantages of the use of tranquillising or psychotropic drugs in schizophrenia.

FELIX POST

INDUSTRIAL HEALTH TECHNOLOGY, by Bryan Harvey and Robert Murray. (Butterworth. 1958. Pp. 337. Price 45s.)

This is a well produced volume written by a doctor and an engineer working together, and directed primarily to the intelligent layman who is concerned with the safeguarding of health in industrial services. The book is divided into three sections, of which the section on the prevention of industrial disease is the most important. Here there is information which is of value to the medical officer in industry as well as to his lay colleagues. The principles of prevention are clearly stated and illustrated. The regulations which ensure that minimal requirements are observed are summarised as appendices to each chapter.

It is difficult to describe clinical syndromes in non-medical terms, and I question the wisdom of attempting this. For example, it appears inconsistent to explain that the trachea is the "windpipe", and on another page to give the clinical findings in heat stroke. It is incorrect to describe the first symptoms of bladder cancer as "a slight difficulty in passing water". There are a few typographical errors—a double bond missing on the anthracene nucleus on p. 92, and ethyl chloride represented with two chlorine atoms on p. 103.

Altogether, this is an interesting and valuable work.

G. KAZANTZIS.

FAT-FREE COOKERY, by Alice Record Hooper. (Oxford University Press. 1958. Pp. 112. Price 12s. 6d.).

Faced with the prospect of a fat-free diet possibly for the rest of her life, the author rebelled against a daily fare of steamed fish, boiled vegetables and jelly. Using fish oils and vegetable (not olive) oil instead of animal fats, and skim milk, she found that she could again eat nearly all the dishes she had been used to cooking for her family. Recipes are given for a wide variety of soups, meat and vegetable dishes, puddings, pastry, cakes, biscuits, and even sweets such as chocolate fudge. To anyone for whom a low-fat diet is advised this book offers continued enjoyment of the pleasures of eating, and the author says, also, that cooking with oil is quicker, easier and cleaner.

NOBODY NEED BE FAT, by Robert Kemp. (Heinemann. 1959. Pp. 150. Price 12s. 6d.).

Dr. Kemp's intimate knowledge of mankind, with its vanities, hopes and fears, has evoked in him a compassion for those handicapped by gross overweight, from the child who is the Aunt Sally of young and old, to the man who cannot reach to fasten his shoes.

Honesty and conviction echo from the far from tedious case notes, which are presented with a sensible balance of modico/lay language.

Balance could be said to be the main theme of this book; no miracles are promised, and up to two years may be taken for a satisfactory reduction, with monthly medical consultation, and weekly weighing strictly observed.

The diet is generous and aims at good metabolism, rather than "filling to bursting". Like all genuine goods, it is costly, and it is shown in the analysis of cases treated that some of the older groups cannot continue treatment because of this.

It is pointed out in the early chapters that any mishap which may befall the thin man, whether a chesty cold, or a broken leg, will effect the fat person in a worse degree. This book therefore is not for the slimming faddist who is interested in publishing her crude vital statistics, but it definitely has a place in the home of the long suffering fat.

V. GRAY.

HEALTH EDUCATION AS A PART OF SOCIAL WORK is the title of the Central Council for Health Education's one day Conference, to be held on 28th January 1960, at Friends House, Euston Road, London, N.W.1. The Conference will be addressed by

PROFESSOR FRANCOIS LAFITTE, Professor of Social Policy and Administration, University of Birmingham.

DR. G. RAMAGE, County Medical Officer of Health for Staffordshire.

DR. A. J. DALZELL-WARD, Medical Director, The Central Council for Health Education.

A SOCIAL WORKER (name to be announced later).

Further details and forms of registration can be obtained from The Medical Director, Central Council for Health Education, Tavistock House, Tavistock Square, London, W.C.1.

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